Environmental Report for the Summit County Service Area #3 Drinking Water System Improvement Project

Summit County, Utah

Submitted to: Utah Division of Drinking Water

May 2026

Document Information

Prepared for	Summit County Service Area #3
Project Name	Summit County Service Area#3 Water Supply Improvement Project, System #22009, Loan #3F2075
	Summit County, Utah
Date	May 2026

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1 INTRODUCTION

On behalf of the Utah Division of Drinking Water (DDW) with support from Rimrock Engineering and Development, Cardinal EC is seeking your agency's comments regarding the proposed Summit County Service Area #3 Crescent Junction Culinary Water System Improvement Project (Proposed Project). The Proposed Project will be funded by the Utah Drinking Water Board from the Federal State Revolving Fund (SRF) administered by DDW. The DDW, through the SRF, is providing funding (Loan #3F2075) for the Proposed Project as part of a program to assist local utility providers with much-needed infrastructure and infrastructure improvements to improve the quality of life for rural residents. As part of this funding, DDW is required to evaluate USFWS-listed species, and if necessary, consult with USFWS directly, to ensure the agency is not undertaking, funding, permitting or authorizing actions that are likely to jeopardize the continued existence of USFWS-listed species or destroy or adversely modify designated critical habitat.

Summit County Service Area #3 (SCSA#3) is in the process of performing an environmental review pursuant to the National Environmental Policy Act (NEPA) for the DDW in order to assess the potential environmental impacts of the Proposed Project in Summit County, Utah. As part of this funding, DDW is required to evaluate the Proposed Project's pursuant to the National Environmental Policy Act (NEPA) to evaluate the impact of the Proposed Project on resources evaluated under NEPA, and if necessary, consult with federal and state agencies directly, to ensure the DDW is not undertaking, funding, permitting or authorizing actions that are likely to result in adverse impacts to protected resources.

1.1 PROJECT DESCRIPTION AND LOCATION

Proposed Project

The Proposed Project is located approximately five miles north of Park City, Utah, in Township 1 South, Range 4 East in portions of section 9, 10, 15, and 16 (Figure 1). The Survey Area includes the entire Proposed Project which includes portions of the existing SCSA#3 residential water infrastructure and undeveloped private land. Its location is shown on Park City East, UT, and Park City West, UT U.S. Geological Survey (USGS) 7.5' quadrangle. The Survey Area includes approximately 17 acres including portions of the existing residential water infrastructure easements as well as areas where the proposed improvements would be located.

SCSA#3 has expressed interest in evaluating undeveloped areas adjacent to the existing SCSA infrastructure for improvement to their water supply system. The improvements would entail construction within existing SCSA#3 easements and within undeveloped lands. The Proposed Project could include, but is not limited to removal of vegetation, regrading, cut and fill, paving, and installation of facilities including:

- A new underground 750,000-gallon concrete storage tank;
- New storage tank access roadway;
- Approximately 8,800 feet of 6" to 10" buried waterlines;
- A new culinary water well and well house;
- System wide-fire flow improvements; and
- Well zone isolation and water chemistry study.

The Proposed Project will entail locating the drinking water system infrastructure upgrades adjacent to the existing SCSA#3 culinary water system infrastructure, on undeveloped land, and along existing roadways to maximize use of previously disturbed areas and easements within the adjacent community.

Disturbance associated with replacement of existing or installation of new buried water line and temporary extra workspace would result in approximately 4.45 acres of temporary disturbance much of which is located within existing paved roadways, road easements, and the existing SCSA#3 waterline easements. As proposed, construction of the new below-ground water storage tank, well house, facilities parking, and service connections would result in disturbance to previously undisturbed areas supporting upland sagebrush pant communities. Approximately 0.21 acres would be permanently converted to above-ground facilities (access road, staging/parking areas, well house, and support infrastructure) and would remain disturbed for the life of the system. After construction of the Proposed Project is complete, the disturbed areas used for temporary extra workspace would be restored to the existing contour and use or reclaimed and reseeded to the extent practical.

During construction slow-moving machinery, vehicles, and workers would be restricted to the Proposed Project, shoulders of the roads, easements where existing SCSA#3 facilities are located, and new easements obtained for this Proposed Project. Ground disturbance would be minimized to the extent practical to existing SCSA#3 easements, along roadways, and temporary extra workspace to facilitate construction and staging. Following installation of the facilities, all disturbed areas would be restored to previous use or reclaimed and construction equipment and workers would leave the area as no other ground disturbing activities would be required. Following construction, the new SCSA#3 facilities would be integrated into the existing residential water supply system. Ground disturbance following construction is anticipated if the facilities are damaged and will be limited to the areas immediately around the damaged facilities.

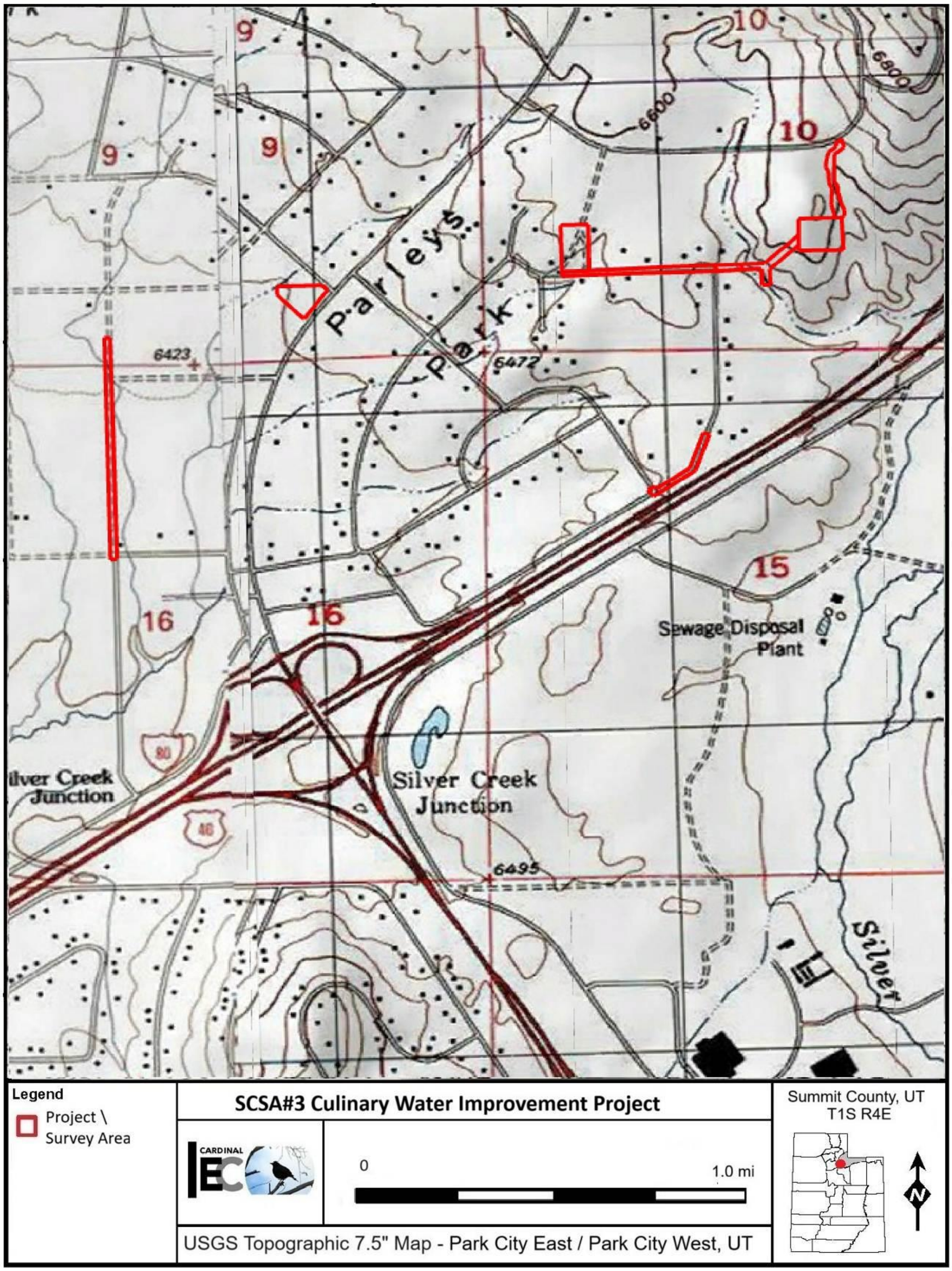

Figure 1 – Project Overview Map

2 RESOURCE ANALYSIS

Consultation with environmental cross-cutting agencies and other stakeholders is required by DDW. The environmental review is not considered complete by DDW without written responses from federal and state agencies whose jurisdictional resources could be, if present, potentially affected by the Proposed Project. Guidance by the DDW has provided a list from which to begin resource evaluation and agency consultation. Beginning in the spring of 2025, SCSA#3 initiated resource reviews, field surveys, and agency coordination to identify the critical environmental issues and address impacts, if any, on protected resources. A table of agencies contacted for the Proposed Project is included in Table 1. Copies of the agency correspondence, subsequent studies, coordination, and determinations are included in Attachment B.

The following list of resources and agency coordination was completed for SCSA#3 as directed by the July 22, 2022, Utah State Environmental Review Process for the Drinking Water State Revolving Fund Program. Findings from the data review, field surveys, and agency consultation identified that the Proposed Project would result in no significant or adverse environmental impact to any one resource.

Archaeological, Cultural, and Historic Resources

Native American Consultation – All Native American Tribes identified as having a potential connection to the Proposed Project using the Utah Division of Indian Affairs and the Tribal Directory Assessment tool were contacted in March 2026 (HUD 2026, UDIA 2026). Cardinal EC has concluded that the Proposed Project will result in no impacts to Native American Resources, as no archaeological sites were documented with the Proposed Project and no comments from Native American Tribes have been received to date.

State Historic Preservation Office Consultation – The Utah State Historic Preservation office (SHPO) was contacted for the Proposed Project following completion of data reviews and field surveys to identify the presence of National Register of Historic Places (NRHP) eligible sites. No NRHP eligible sites occur or would be affected by the Proposed Project (Bighorn 2025a, Bighorn 2025b, Bighorn 2026). The SHPO has concurred with a determination of “No Historic Properties Affected”.

Biological Resources, Threatened and Endangered Species

U.S. Fish and Wildlife Service Consultation – The U.S. Fish and Wildlife Service (USFWS) was contacted for the Proposed Project following completion of data reviews and field surveys to identify the presence of species listed threatened, endangered, candidate, or proposed by the USFWS, habitat to support USFWS-listed species and designated critical habitat (Cardinal 2026, USFWS 2026, UDWR 2025). It was concluded that no USFWS-listed species, habitat, or designated critical habitat occur in the Proposed Project. USFWS has not responded to the request for a “no affect” concurrence determination for the Proposed Project following the field surveys (Cardinal 2026a). Given that no USFWS-listed species, habitat to support listed species, or designated critical habitat occurs in the Proposed Project, it has been concluded that the Proposed Project would not result in significant impacts to these resources.

Wetlands

U.S. Army Corps of Engineers Consultation – The U. S. Army Corps of Engineers (USACE) was contacted following completion of the data reviews and field surveys to identify the presence of USACE jurisdictional resources within the Proposed Project. Results of the survey identified wetlands within the Survey Area; however, it was determined that no impacts to USACE jurisdictional resources would occur as a result of the Proposed Project’s construction (Cardinal 2026b). As part of their jurisdictional authority, USACE requires a permit for all wetland impacts and water crossings as described under Section 404 of the Clean Water Act and Utah State Division of Water Rights stream crossing regulations where applicable. Since the USACE does not typically evaluate or approve projects which have no impact to USACE jurisdictional resources, the USACE response has provided language identifying that if impacts to USACE jurisdictional resources are anticipated, USACE wetlands permitting would be required by law. As proposed, construction of the Proposed Project would follow all applicable federal, state, and local laws for construction and operation. Results of the 2025 Cardinal EC aquatic resources data review, field survey, and request for concurrence of "no impacts to USACE-jurisdictional wetlands or waters of the U.S." are provided in Appendix B

Floodplain Management

Utah Division of Emergency Management Consultation – Utah Division of Emergency Management has granted authority of floodplain management to Summit County, Utah. The Summit County Floodplain manager was contacted following completion of the data review to determine the presence of floodplains/Special Flood Hazard Areas. Results of the data review identified that the Proposed Project entails installation of the Greenfield Water Line Site (buried) within a floodplain identified as a Special Flood Hazard Area designated as Zone X – Areas of 0.2% annual chance of flood (FEMA 2026). Portions of the Greenfield Water Line Site are within existing paved roadways. During consultation with Summit County, it was identified that the county regulates only those areas with a 1% or greater chance of flooding, thereby eliminating the need for further consideration for projects within areas designated as Zone X. It was therefore concluded that the Proposed Project would not result in significant impacts to floodplains.

Farmlands

USDA Natural Resources Conservation Service Consultation – The USDA Natural Resources Conservation Service (NRCS) was contacted for comment following completion of the data reviews to identify the presence of Prime Farmlands and Farmlands of Statewide Importance within the Proposed Project (NRCS 2026a, NRCS 2026b, NRCS 2026c). Results of the data review identified that Prime Farmlands and/or Farmlands of Statewide Importance do occur with the Proposed Project and are identified as Ant Loam 8 to 15 percent slopes and Wanship loam, 0-3 percent slopes. As designed, the Proposed Project occurs almost entirely on existing roadways and existing water system easements within the adjacent community and would not impact any areas currently used for agricultural purposes. Since the potential for impacts to Prime Farmlands and/or Farmlands of Statewide Importance could occur, consultation with NRCS staff was initiated.

Of the soils identified through the NRCS review of the Proposed Project and surrounding areas, three are NRCS-designated Prime Farmlands, Farmlands of Statewide Importance, or Prime Farmlands if Irrigated (NRCS 2026b). Temporary disturbance to Wanship loam, 0-3 percent slopes would occur within the Greenfield Waterline Site, however; these areas are already within an existing roadway, some of which is paved. Due to the temporary nature of project-related disturbance and the nature of existing disturbance within the Greenfield Waterline Site, disturbance to Wanship loam, 0-3 percent slopes was not carried forward for further analysis. Permanent disturbance to NRCS-designated soils includes approximately 0.01 ac. of permanent disturbance to Ant Flat loam, 8 to 15 percent slopes, a Farmland of Statewide Importance. These impacts would occur as a direct result of constructing the new well and well house within the Silver Bullet Tank Site. Because the Proposed Project could result in permanent impacts to NRCS-designated soils and in an effort to maintain compliance with the Farmland Protection Policy (FPPA), the NRCS requested completion of a Land Evaluation and Site Assessment (LESA) process to determine the Farmland Conversion Impact Rating score method under Form-AD1006 for 0.01 acre of Ant Flat Loam, 8-15 percent slopes. With guidance from NRCS staff, Cardinal EC calculated the LESA score at 46 total points. The full correspondence with NRCS and subsequent analysis are provided in detail in Appendix B.

NRCS concluded that the total LESA score for the Proposed Project was less than 160, which demonstrates that the site does not require further evaluation for farmland protection under the FPPA and is exempted by NRCS from further consideration. It was therefore concluded that the Proposed Project would not result in significant impacts to Prime Farmlands, Farmlands of Statewide Importance.

Sole Source Aquifer

The Proposed Project is not within a designated Sole Source Aquifer (EPA 2026a). The nearest Sole Source Aquifer, Western Unita Arch Paleozoic Aquifer System at Oakley, Utah is located over 14 mi. east of the Proposed Project. No impacts to Sole Source Aquifers would occur as a result of construction or operation of the Proposed Project.

Air Quality

The Proposed Project is located within Summit County, Utah. Summit County is not listed as a nonattainment County in Utah (EPA 2026b). The Proposed Project will result in a temporary increase of emissions during construction from trenching equipment, backhoes, excavation equipment and worker vehicles. Operation of the Proposed Project would be powered by electricity for the life of the system and would not require air quality permits. No agency consultation was completed because no impacts to Sole Source Aquifers would occur as a result of construction or operation of the Proposed Project

Wild and Scenic Rivers

The Proposed Project occurs within the upper watershed of Kimball Creek. Kimball Creek is not designated as a Wild and Scenic River (National Wild and Scenic River System, 2026). The nearest designated Wild and Scenic River is the Green River located over 140 miles southeast of the Proposed Project. No agency consultation was completed for this resource as no impacts to this resource would occur.

Land Management Agencies

The Proposed Project occurs entirely on private land (Utah Geospatial Resource Center, 2026). No additional consultation with state or federal land management agencies is required.

3 CATEGORICAL EXCLUSION ELIGIBILITY

Following review of the specific resources in Section 2 and completion of the Environmental Review Checklist and Request for Categorical Exclusion (Attachment A), it is Cardinal EC's conclusion that the Proposed Project would be eligible for a Categorical Exclusion. If it is determined through agency review that the Proposed Project is not eligible for a Categorical Exclusion, further consultation will be initiated with the DDW to prepare an Environmental Assessment.

Table 1 – Agency Contact List

Agency	Contact	Street Address	Email	Phone
Utah Division of Indian Affairs				
Confederated Tribes of the Goshute	Amos Murphy, Chairman	HC 61 Box 6104 195 Tribal Center Rd. Ibapah, UT 84034-4036	amos.murphy@ctgr.us	(435) 234-1138
Navajo Nation	Buu Nygren, President	100 Parkway P.O. Box 7440 Window Rock, AZ 86515	President.buunygren@navajo-nsn.gov	(928) 871-7000 Fax (928) 871-4025
Navajo Nation	Mr. Timothy Begay, Tribal Historic Preservation Officer	P.O. Box 4950 Wind Rock, AZ 86515	tbegay@navajo-nsn.gov	(928) 871-7147
Northwestern Band of Shoshone Nation	Jason Walker, Chairman	505 Pershing Ave. Ste 200, Pocotello, ID 83201	jwalker@nwbshoshone.com	(208) 478-5712
Northwestern Band of Shoshone Nation	Patty Timbimboo-Madsen, History and Cultural Specialist	2575 Commerce Way, Ogden, UT 84401	ptimbimboo@nwbshoshone.com	(435) 734-2286 Fax (435) 735-0424
Paiute Indian Tribe of Utah	Laura Yellowhorse, Chairwoman	440 Paiute Dr, Cedar City, UT 84721	lyellowhorse@utahpaiutes.org	(435) 586-1112 Fax (435) 867-2659
Paiute Indian Tribe of Utah	Shelby Chapoose Cultural Resource Manager	440 Paiute Dr, Cedar City, UT 84721	schapoose@pitu.gov	(435) 586-1112 Fax (435) 867-2659
Skull Valley Band of Goshute	Daniel Moon, Chairperson	407 Skull Valley Road Skull Valley, UT 84029	danielm@svgoshutes.com info@skullvalleygoshutetribe.org URL: https://skullvalleygoshutes.com/ https://indian.utah.gov/aboutus/utl/ - UT Div of Indian Affairs.	(435)-831-4079 Fax (435) 882-4889
Skull Valley Band of Goshute	Kyle Craig, Vice Chairperson		kylec@svgoshutes.com	(435)-831-4079
Skull Valley Band of Goshute			info@skullvalleygoshutetribe.org	
San Juan Southern Paiute	Carlene Yellowhair,	PO Box 2950 Tuba City,	c.yellowhair@sanjuanpaiute-nsn.gov	(928) 212-9794 Fax:(928) 233-

Agency	Contact	Street Address	Email	Phone
Tribe	President	AZ 86045	URL: https://www.sanjuanpaiute-nsn.gov/	8948
San Juan Southern Paiute Tribe	Tamara Talaswaima, Administrator		t.talaswaima@sanjuanpaiute-nsn.gov	(928) 212-9794
Ute Indian Tribe of the Uintah and Ouray Reservation	Shaun Chapoose, Chairman	P.O. Box 190 Fort Duchesne, Utah 84026-0190 6964 E 1000 South Ft. Duchesne, UT 84026	shaunc@utetribe.com	(435) 722-5141 Fax:(435) 722-2374
Ute Indian Tribe of the Uintah and Ouray Reservation	Betsy Chapoose, Director, Cultural Rights and Protection Department, THPO	P.O. Box 190 Fort Duchesne, UT 84026-0190	betsyc@utetribe.com	(435) 725-4826
Ute Mountain Tribe	Selwyn Whiteskunk, Chairman	P.O. Box JJ Towaoc, CO 81334	Selwyn.Whiteskunk@utemountain.org	(970) 564-5606 (970) 564-5600 Fax (970) 564-5709
Ute Mountain Tribe	Gwendolyn Cantsee, Vice Chairman		Gwen.cantsee@utemountain.org	(970) 564-5632
Ute Mountain Tribe		125 Mike Wash Rd. Towaoc, Colorado, 81334	https://www.utemountainutetribe.com/index.html	(970) 565-3751
White Mesa Community	Malcom Lehi, White Mesa Council Rep.	P.O. Box 434 White Mesa, Utah 84511	Malcolm.Lehi@utemountain.org	(435) 678-3397 Fax (435) 678-3735
White Mesa Community	Serena Posey, Acting Administrator	P.O. Box 7096 19 South Willow St. White Mesa, Utah 84511	sposey@utemountain.org	(435) 678-3397 or (435) 678-3685
US Tribal Directory Assessment Tool (https://egis.hud.gov/TDAT/)				
Northwestern Band of Shoshoni Nation	See above			
Eastern Shoshone Tribe of the Wind River Reservation, Wyoming	Wayland Large, Chairman	14 Norfolk Rd. Ft. Washakie, WY 82514	wlarge@easternshoshone.org URL: http://www.easternshoshone.org/	(307) 332-4932 Fax (307) 332-3055

Agency	Contact	Street Address	Email	Phone
Eastern Shoshone Tribe of the Wind River Reservation, Wyoming	Joshua Mann, THPO	PO Box 538 Fort Washakie, WY 82514	jmann@easternshoshone.org	(307) 335-2081 Fax:(307) 332-3055
Shoshone-Bannock Tribes of the Fort Hall Reservation	Donna Thompson, Chairwoman	Agency Building 82 1 Pima Drive Fort Hall, ID 83203	Donna.thompson@sbtribes.com	(208) 478-3700 Fax (208) 237-0797
Shoshone-Bannock Tribes of the Fort Hall Reservation	Carolyn Smith, Cultural Resources Coordinator	PO Box 306 Fort Hall, ID 83203	carolyn.smith@sbtribes.com	(208) 236-1086
Ute Indian Tribe of the Uintah and Ouray Reservation, Utah	See above			
US Army Corps of Engineers				
Sacramento District, Utah Regulatory Office, Sacramento District	Sacramento Regulatory District General Email		SPKRegulatoryMailbox@usace.army.mil	
Sacramento District, Utah Regulatory Office, Sacramento District	Hollis Jencks, Project Manager, Utah Regulatory Section	523 Heritage Park Blvd, Suite 1 Layton, UT 84041	Hollis.G.Jencks@usace.army.mil	(385) 303-9436
Sacramento District, Utah Regulatory Office, Sacramento District	Connor Jones, Project Manager Summit County	523 Heritage Park Blvd, Suite 1 Layton, UT 84041	Connor.D.Jones@usace.army.mil	(385) 303-9436
US Fish and Wildlife Service				
Utah Ecological Field Office	Field Office Supervisor	(2369 W Orton Cir # 50, West Valley City, UT 84119	utahfieldoffice_esa@fws.gov	(801) 975-3330
US Department of Agriculture				
Natural Resource Conservation Service	Terron Pickett, Area Resource Soil Scientist	125 South State Street Salt Lake City, UT 84138-1100	Terron.pickett@usda.gov	(801) 524-4573
Utah Division of State History, State Historic Preservation Office				
SHPO	Chris Merritt, Deputy	300 Rio Grande St.	cmerritt@utah.gov	

Agency	Contact	Street Address	Email	Phone
	SHPO	Salt Lake City, UT 84101		
Utah Division of Emergency Management/Summit County				
Utah Floodplain Manager	Tracy Harrison	4315 S. 2700 W. 2nd Floor, Suite 2200 Taylorsville, UT 84129-2128	tjharrison@utah.gov	(385) 499-2077
Summit Co. Floodplain Manager / City Engineer	Brandon Brady, Engineer	60 N. Main St. PO Box 128 Coalville, UT 84017	bbrady@summitcountyutah.gov	435-336-3294

4 REFERENCES

Bighorn Archaeology (Bighorn), 2025a. Cultural Resource Inventory for the Proposed SCSA#3 Crescent Junction Water Project, Summit County, Utah. UDSH # U25HO0906

Bighorn, 2025b. Addendum to the Cultural Resource Inventory for the Proposed SCSA#3 Crescent Junction Water Project, Summit County, Utah. UDSH # U25HO0969

Bighorn, 2026. Addendum #2 to the Cultural Resource Inventory for the Proposed SCSA#3 Crescent Junction Water Project, Summit County, Utah. UDSH # U26HO0214

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Cardinal. 2026b. Survey for the presence of U.S. Army Corps of Engineers jurisdictional features. Field survey results summarized in consultation letter.

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SCSA#3 Water System Improvement
Summit County, Utah

ATTACHMENT A

ENVIRONMENTAL REVIEW CHECKLIST AND REQUEST FOR CATEGORICAL EXLCUSION

UTAH DWSRF
ENVIRONMENTAL REVIEW CHECKLIST

The following checklist must be completed for DDW to determine the necessary environmental review requirements for the proposed project, or to determine if the project qualifies for a categorical exclusion. Please contact a DWSRF Project Manager with any questions.

Section 1. General Information

Recipient Name: Summit County Service Area #3	Date: May 05, 2026
Project Title: Summit County Service Area #3 Culinary	Project Number:
Project Contact: General Manager	Phone Number: (435) 500-6276
Email gm@summitcosa3ut.gov,	

Proposed Project

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SCSA#3 has expressed interest in evaluating undeveloped areas adjacent to the existing SCSA infrastructure for expansion of their water supply system. While the final design of the Proposed Project and permitting are not complete, the expansion would entail construction within existing SCSA#3 easements and undeveloped lands. The Proposed Project could include, but is not limited to removal of vegetation, regrading, cut and fill, paving, and installation of facilities including:

- A new underground 750,000-gallon concrete storage tank;
- New storage tank access roadway;
- Approximately 8,800 feet of 6" to 10" buried waterlines;
- A new culinary water well and well house;
- System wide-fire flow improvements; and
- Well zone isolation and water chemistry study.

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During construction slow-moving machinery, vehicles, and workers would be restricted to the Proposed Project, shoulders of the roads, easements where existing SCSA#3 facilities are located, and new easements obtained for this Proposed Project. Ground disturbance would be minimized to the extent practical to existing SCSA#3 easements, along roadways, and temporary extra workspace to facilitate construction and staging. Following installation of the facilities, all disturbed areas would be restored to previous use or reclaimed and construction equipment and workers would leave the area as no other ground disturbing activities would be required. Following construction, the new SCSA#3 facilities would be integrated into the existing residential water supply system. Ground disturbance following construction is anticipated if the facilities are damaged and will be limited to the areas immediately around the damaged facilities.

Location:

The Project is located approximately five miles north of Park City, Utah, in Township 1 South, Range 4 East in portions of section 9, 10, 15, and 16 (Figure 1). Its location is shown on Park City East, UT, and Park City West, UT U.S. Geological Survey (USGS) 7.5' quadrangle.

Map: *(Attached Below)*

Section 2. Categorical Exclusion Eligibility

A project for which the answer to any part of statement 1 is "yes" may be eligible for a Categorical Exclusion. However, if any of the statements from 2 through 6 is answered "yes," then the project is not eligible. [40 CFR §6.204(a)(1)(ii)].

	Yes	No	Basis for Determination and Documentation*
1. The project relates to existing infrastructure systems and involves minor upgrading, minor expansion of system capacity, rehabilitation (including functional replacement) of the existing system and system components, or construction of new minor ancillary facilities adjacent to or on the same property as existing facilities.	☒	☐	Proposed Project includes upgrades of existing facilities and construction of new facilities within existing and new water supply easements. A new higher capacity storage tank will be installed in the vicinity of the existing storage tank and waterlines would be located within existing water line easements largely within existing roadways and new easements to accommodate the new infrastructure.
2. The project involves new or relocated discharges to surface or groundwater.	☐	☒	No discharges to surface water or groundwater would occur as a result of the Proposed Project
3. The project will likely result in the substantial increase in the volume or the loading of pollutants to the receiving water.	☐	☒	No discharges to surface water or groundwater would occur as a result of the Proposed Project.
4. The project will provide capacity to serve a population 30% greater than the existing population.	☐	☒	The Proposed Project will service the existing customers of Summit County Service Area #3. Growth within the service area is expected over time and the system has been designed to service only the existing number of approved/platted lots within the service area.
5. A state or other regional growth plan or strategy does not support this project. *Answering "yes" indicates that the project is **not** supported.*	☐	☒	The existing Summit County Service Area #3 is an approved provider of culinary water. Growth is limited to the existing number of approved/platted lots by Summit County.

6. The project directly or indirectly involves or relates to upgrading or extending infrastructure systems primarily for the purposes of future development.	☐	☒	The Proposed Project is not primarily for the purposes of future development. The Proposed Project includes culinary water supply upgrades for the existing as well as future users of this system.

Section 3. Extraordinary Circumstances

If any of the following extraordinary circumstances apply to the project, it is not eligible for a Categorical Exclusion. [40 CFR §6.204(2)(1)-(10)]

	Yes	No	Basis for Determination and Documentation*
1. The proposed action is known or expected to have potentially significant environmental impacts on the quality of the human environment either individually or cumulatively over time.	☐	☒	No significant environmental impacts would occur. The Proposed Project includes an upgrade to the existing Summit County Service Area #3 culinary water supply system.
2. The proposed action is known or expected to have disproportionately high and adverse human health or environmental effects on any community, including minority communities, low-income communities, or federally recognized Indian tribal communities.	☐	☒	No adverse human health or environmental effects would occur on any community including minority, low income, or federally recognized Indian tribes. The Proposed Project includes an upgrade to the existing culinary water supply system.
3. The proposed action is known or expected to significantly affect federally listed threatened or endangered species or their critical habitat.	☐	☒	Field surveys completed for the Proposed Project did not identify any federally listed threatened or endangered species or their critical habitat. The U.S. Fish and Wildlife consultation letter is included in Appendix B. No comment was received requesting additional information.
4. The proposed action is known or expected to significantly affect national natural landmarks or any property with nationally significant historic, architectural, prehistoric, archeological, or cultural value, including but not limited to, property listed on or eligible for the National Register of Historic Places.	☐	☒	Cultural resource surveys completed for the Proposed Project identified that No NRHP eligible sites occur or would be affected by the Proposed Project. The SHPO has concurred with a determination of "No Historic Properties Affected" for the Proposed Project. The UT SHPO consultation letters and coordination are included in Appendix B.
5. The proposed action is known or expected to significantly affect environmentally important natural resource areas such as:			
5a. wetlands	☐	☒	The Proposed Project would not result in significant impacts to the wetlands. As designed, the Proposed Project avoids significant impacts to wetlands and waters of the U.S. The USACE correspondence letter and response

			are included in Attachment B.
5b. floodplains	☐	☒	The Proposed Project would not result in significant impacts to floodplains. The floodplains correspondence letter and response are included in Attachment B.
5c. significant agricultural lands	☐	☒	Prime Farmlands and/or Farmlands of Statewide Importance occur within the Proposed Project. A NRCS Land Evaluation and Site Assessment was completed and concluded that the Proposed Project was exempt from further analysis because the potential impacts are negligible so as to be discounted. The Proposed Project would not result land use changes that would create significant impacts to significant agricultural lands. The NRCS consultation and response are included in Attachment B.
5d. aquifer recharge zones	☐	☒	Impacts to Sole Source Aquifers would not occur. The Proposed Project does not occur in a Sole Source Aquifer. The nearest sole source aquifer is over 14 mi. east.
5e. wild and scenic rivers	☐	☒	Impacts to wild and scenic rivers would not occur. The Proposed Project does not cross a river or other waterbody. The nearest designated wild and scenic river is the Green River located over 140 miles southeast .
5f. significant fish or wildlife habitat	☐	☒	Impacts to significant fish or wildlife habitat would not occur. The Proposed Project is located in a dispersed residential community and includes upgrades to an existing culinary water supply system along roadways and along existing and new waterline easements
6. The proposed action is known or expected to cause significant adverse air quality effects.	☐	☒	The Proposed Project would not result in significant adverse air quality effects. Summit County is not listed as a nonattainment county in Utah where special air quality considerations are required. A minor and temporary increase in emissions would occur during construction from construction equipment. Operation of the Proposed Project would not result in additional emissions.

7. The proposed action is known or expected to have a significant effect on the pattern and type of land use (industrial, commercial, agricultural, recreational, residential) or growth and distribution of population including altering the character of existing residential areas, or may not be consistent with state or local government, or federally-recognized Indian tribe approved land use plans or federal land management plans.	☐	☒	The Proposed Project would not result in a significant effect to the pattern and type of land use. The Proposed Project is within an existing planned community and includes upgrades to an existing culinary water supply system.
8. The proposed action is known or expected to cause significant public controversy about a potential environmental impact of the proposed action.	☐	☒	The Proposed Project would not result in public controversy as no permanent or adverse environmental impacts would occur. The Proposed Project would service an existing planned community and would include upgrades to an existing culinary water supply system. Controversy among the residents or public is not anticipated.
9. The proposed action is known or expected to be associated with providing financial assistance to a federal agency through an interagency agreement for a project that is known or expected to have potentially significant environmental impacts.	☐	☒	The Proposed Project would not result in significant environmental impacts. The Proposed Project would service an existing planned community and would include upgrades to an existing culinary water supply system.
10. The proposed action is known or expected to conflict with federal, state or local government, or federally recognized Indian tribe environmental, resource-protection, or land-use laws or regulations.	☐	☒	The Proposed Project would not conflict with environmental, resources protection, or land-use laws or regulations. Tribal consultation was initiated for this Project and is included in Appendix B. No comments have been received. The Proposed Project will follow all applicable state and federal permitting requirements as identified through agency consultation.

*Basis for Determination and Documentation

.

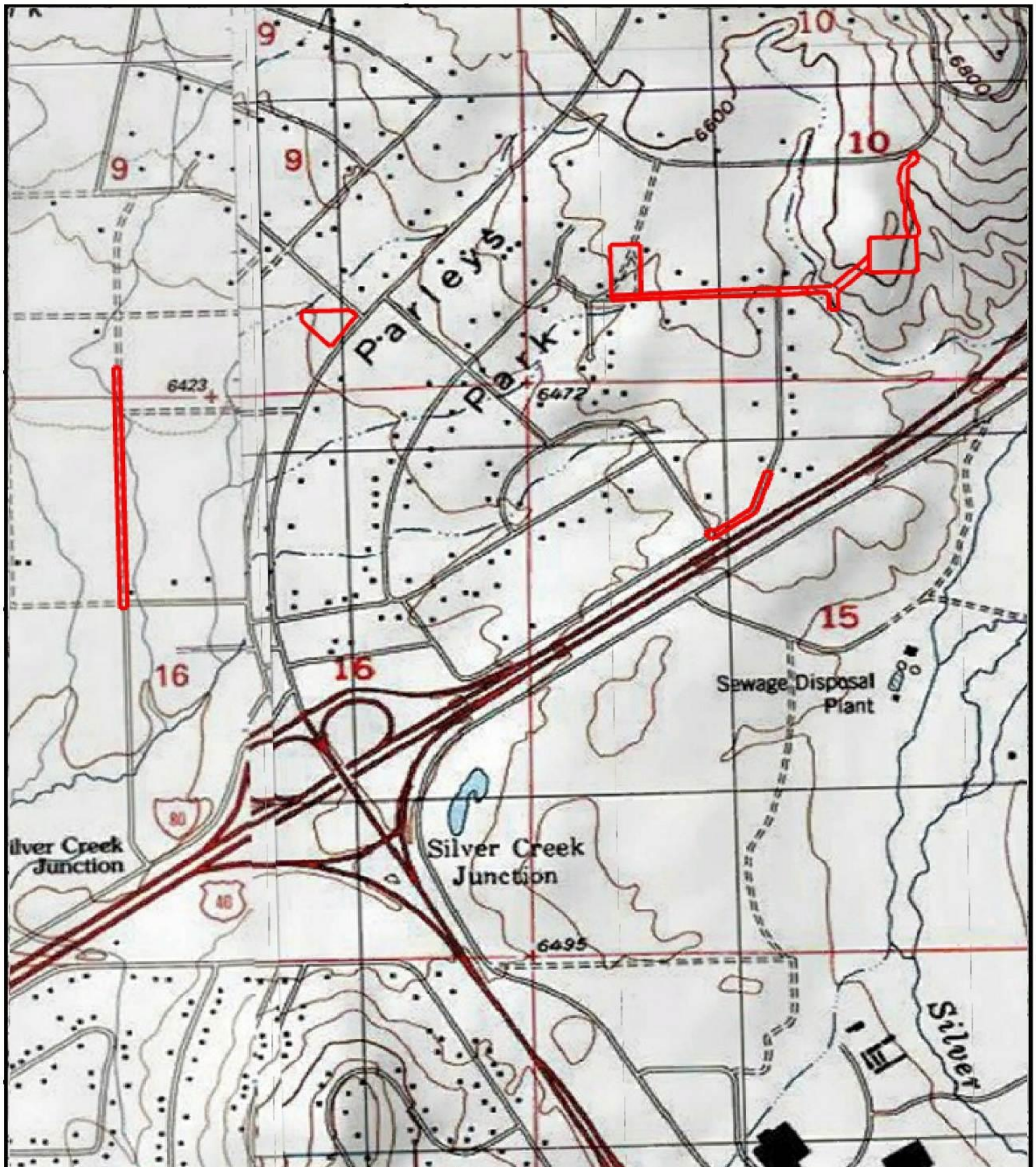
Section 4. Special Conditions

	Yes	No	Comments/Documentation
1. The project is for planning purposes only and does not include construction.	☐	☒	The Proposed Project includes planning, construction, and operation of a residential culinary water system.
2. An EA/FONSI or EIS/ROD under NEPA has been conducted for this project or earlier phases of this project. **If yes, provide a copy of the review document and decision*	☐	☒	The Proposed Project is an expansion and improvement of an existing residential culinary water system. No prior NEPA action has been issued.

CERTIFICATION AND AUTHORIZATION

☒ *I certify that the information contained in this Environmental Review Checklist is, to the best of my knowledge, true, accurate, and correct.*

I hereby affirm that I, Aaron James am the Environmental Consultant and I am authorized by Summit County Service Area #3 to submit this Environmental Review Checklist on behalf of the organization for which I am acting.



Legend

Project \ Survey Area

SCSA#3 Culinary Water Improvement Project

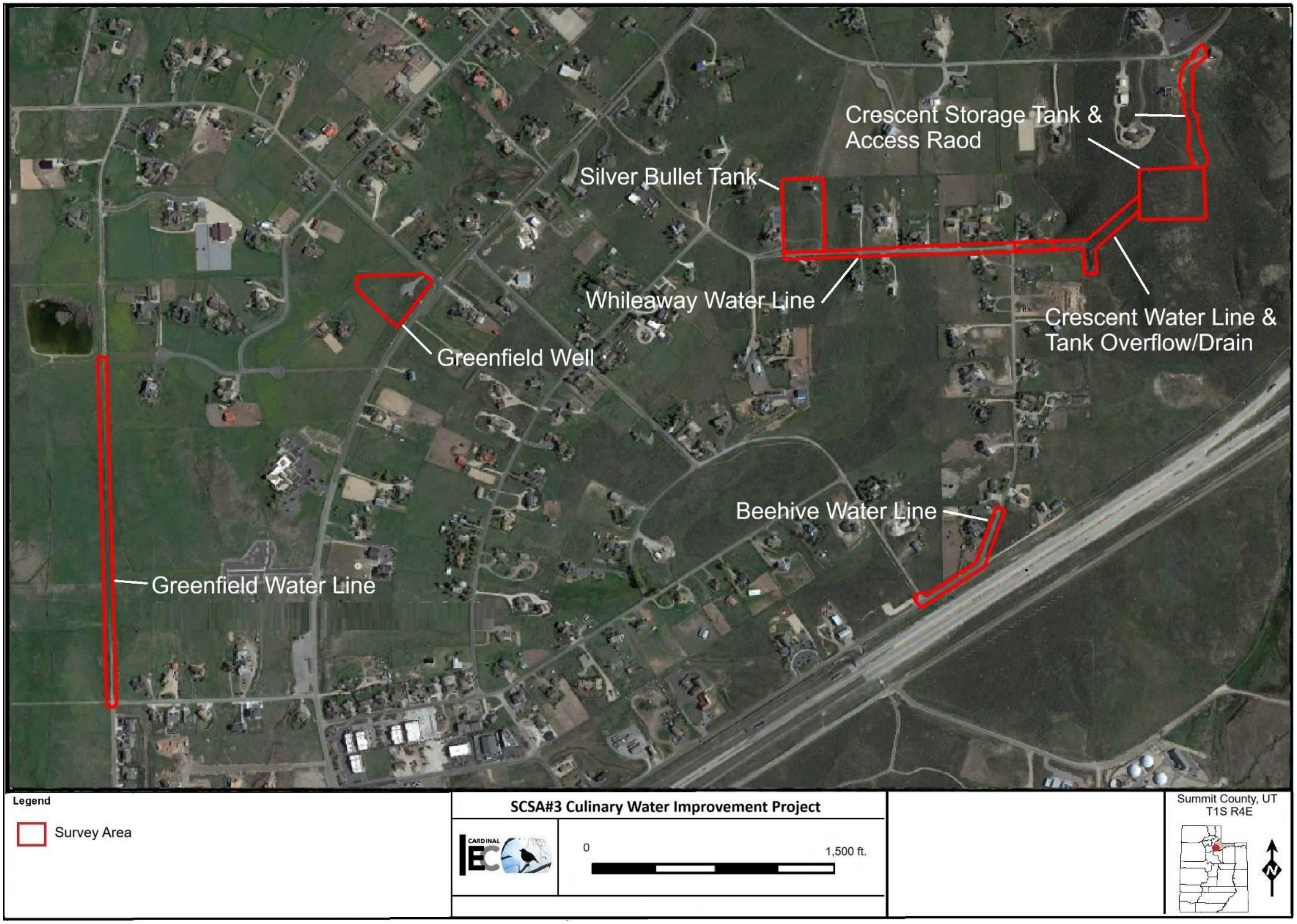
CARDINAL ECO

0 — 1.0 mi

USGS Topographic 7.5" Map - Park City East / Park City West, UT

Summit County, UT
T1S R4E

N


Crescent Storage Tank &
Access Raod
Silver Bullet Tank
Whileaway Water Line
Crescent Water Line &
Tank Overflow/Drain
Greenfield Well
Beehive Water Line
Greenfield Water Line
Legend
Survey Area
SCSA#3 Culinary Water Improvement Project
0
1,500 ft.
Summit County, UT
T1S R4E

SCSA#3 Water System Improvement
Summit County, Utah

ATTACHMENT B

AGENCY CORRESPONDENCE

Native American Consultation

Sample Tribal Consultation Letter

(All Tribal Consultation Letters on file with Utah Division of Drinking Water)

March 31, 2026

Daniel Moon, Chairperson
Kyle Craig, Vice Chairperson
Skull Valley Band of Goshute
407 Skull Valley Road
Skull Valley, UT
84029

RE: Proposed Federal Loan to Summit County Service Area #3 Culinary Water System Improvement Project, Summit County, Utah

Chairperson Moon and Vice Chairperson Craig,

On behalf of the Utah Division of Drinking Water (DDW), Cardinal EC is seeking your tribe's comments or concerns regarding the proposed Summit County Service Area #3 (SCSA#3) Culinary Water System project (Proposed Project). SCSA#3 is in the process of performing an environmental review pursuant to the National Environmental Policy Act (NEPA) for the Utah Division of Drinking Water (DDW) in order to assess the potential environmental impacts of the Proposed Project in Summit County, Utah. As part of this environmental review process, SCSA#3 is also conducting a historic resource review in compliance with Section 106 of the National Historic Preservation Act (NHPA) in coordination with the DDW and the Utah State Historic Preservation Office. The proposed project will be funded by the Utah Drinking Water Board from the Federal State Revolving Fund (SRF) administered by DDW.

Proposed Project

The Project is located approximately five miles north of Park City, Utah, in Township 1 South, Range 4 East in portions of section 9, 10, 15, and 16 (Attachment 1). The Survey Area includes the entire Proposed Project which includes portions of the existing SCSA#3 residential water infrastructure along existing roads and undeveloped private land. Its location is shown on Park City East, UT, and Park City West, UT U.S. Geological Survey (USGS) 7.5' quadrangle. The Survey Area includes approximately 17 acres including portions of the existing residential water infrastructure easements as well as areas where the proposed improvements would be located. The total disturbance for the Proposed Project includes approximately 4.5 acres of temporary disturbance most of which occurs within existing roads or transportation easements and will be reclaimed to existing use and function. Approximately 0.21 acres will be permanently converted to new culinary water facilities (Crescent Storage Tank, Access Road, Water Line, Overflow/Drain, and support infrastructure) in previously undisturbed lands.

SCSA#3 has expressed interest in evaluating undeveloped areas adjacent to their existing infrastructure for expansion of their water supply system. While the final design of the Proposed Project and permitting are not complete, the expansion would entail construction within existing SCSA#3 easements and undeveloped lands. The Project could include, but is not limited to removal of vegetation, regrading, cut and fill, paving, and installation of facilities including:

- A new underground 750,000-gallon concrete storage tank;
- New storage tank access roadway;
- Approximately 8,800 feet of 6" to 10" buried waterlines;
- A new culinary water well and well house;
- System wide-fire flow improvements; and
- Well zone isolation and water chemistry study.

At this time, SCSA#3 has completed the required pedestrian inventories for cultural resources and has determined that no NRHP eligible sites will be affected by the Proposed Project. This letter is intended to notify you of the proposed federal project (a potential loan to SCSA#3), identify if you have an interest in the Proposed Project, and provide you with the opportunity to comment and engage DDW in government-to-government consultation. Any comments or concerns you provide will help ensure that DDW considers Tribal interests and complies with its NEPA and NHPA Section 106 responsibilities.

I would greatly appreciate notification if you do or do not have an interest in the Proposed Project, as well as any comments or concerns you may have within 30 days. Should you have an interest in the Proposed Project, I will provide you with additional information pursuant to NEPA and the NHPA as it becomes available. Please provide your notification of interest and any comments or concerns by email at aaron.james@cardinal-ec.com, or I can also be reached by telephone at 801-719-9132. If you prefer, you may also contact the DDW project manager Allyson Spevak by email at allysonspevak@utah.gov or by telephone at 801-536-4200.

Respectfully,

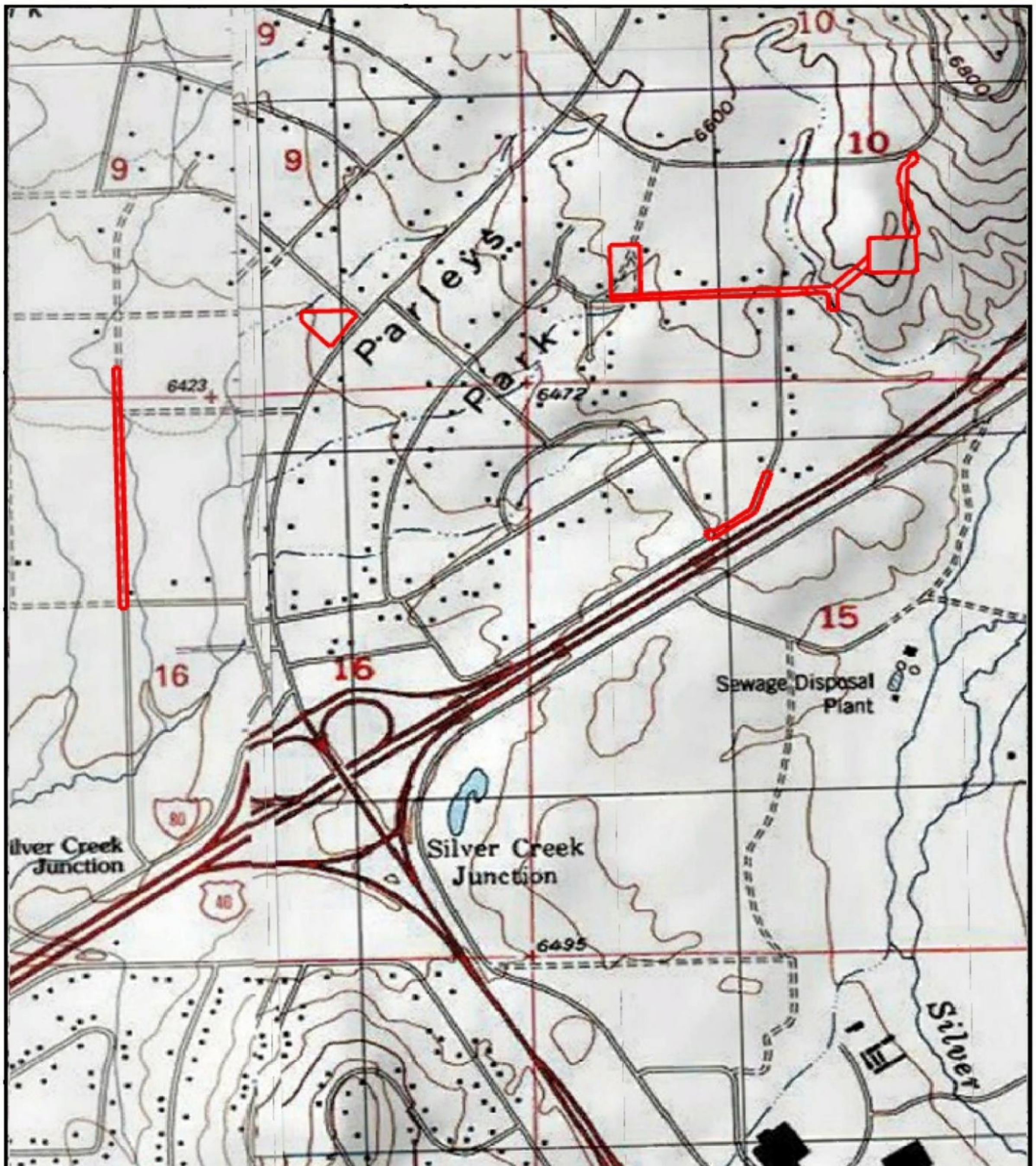
Aaron James

Aaron M. James
Principal
Cardinal EC

Attachment 1 – Topographic Map and Aerial Map of Project
Attachment 2 – Preliminary Design Plan

SCSA#3 Culinary Water Improvement Project

Attachment 1 – Project Overview Topographic Map and Aerial Map



Legend

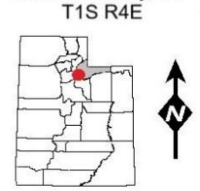
Project \ Survey Area

SCSA#3 Culinary Water Improvement Project

0 1.0 mi

USGS Topographic 7.5" Map - Park City East / Park City West, UT

Summit County, UT
T1S R4E



Legend

Survey Area

SCSA#3 Culinary Water Improvement Project

CARDINAL ECO

0 — 1,500 ft.

Summit County, UT
T1S R4E

N

SCSA#3 Culinary Water Improvement Project

Attachment 2 – Preliminary Design Plan

2/20/2026

SHEET NOTES

SHEET LEGEND

PLAN REVISIONS

A. ADDED SILVER BULLET SHEET FOR REFERENCE

RIMROCK ENGINEERING & DEVELOPMENT

CAD TECH:	CRS
DESIGNER:	CRS
Q&A:	JNS

CALL BLUE STAKES PRIOR TO DIGGING

PROJECT NAME

SCSA#3 CULINARY WATER 2026

SHEET NAME

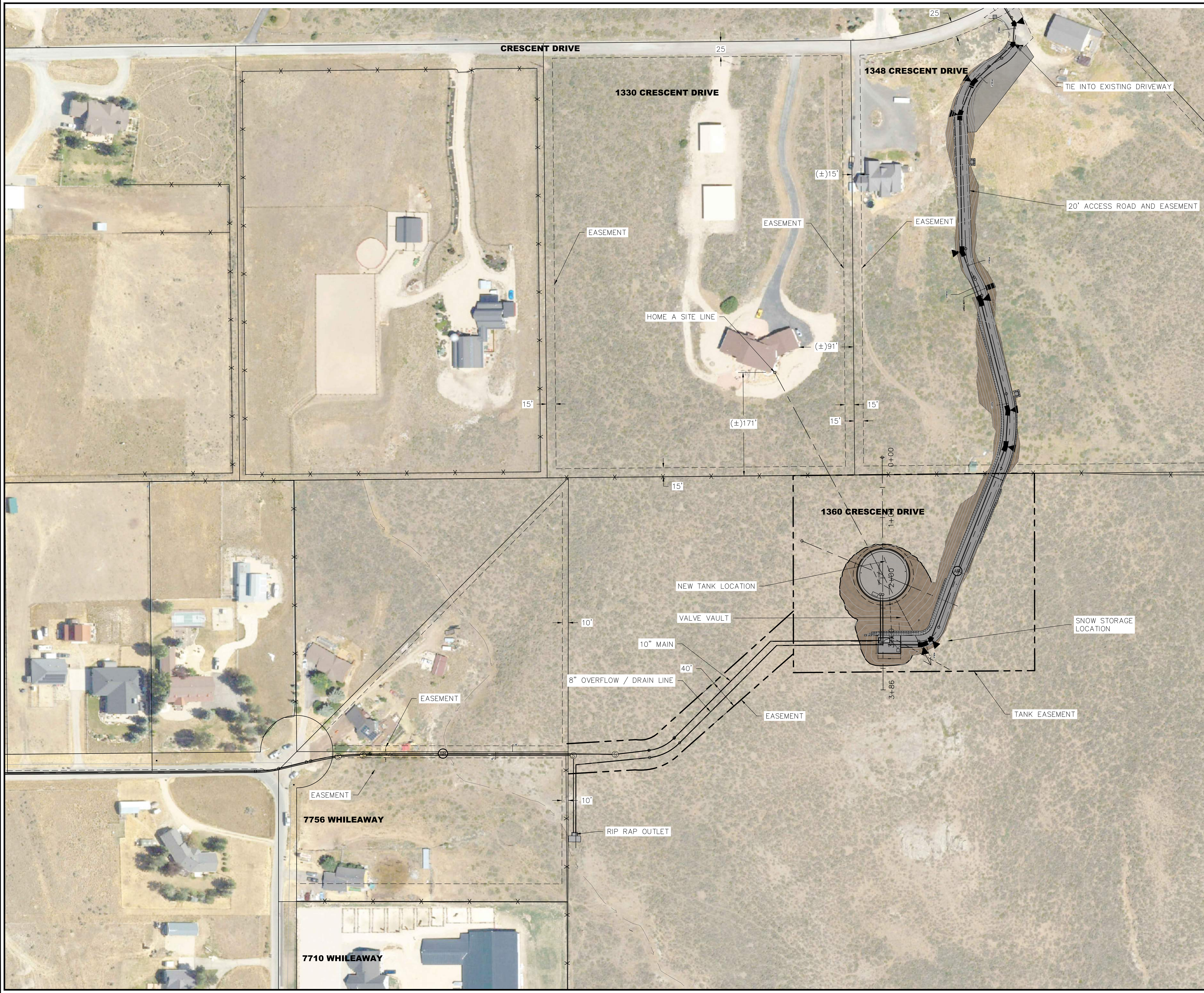
OVERALL INDEX SHEET

PLAN SUBMITTAL: DDW REVIEW

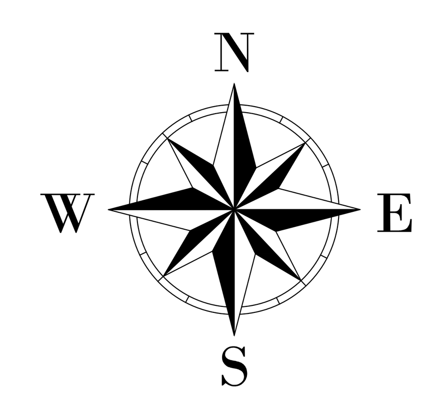
2/20/26

SHEET NUMBER

INDEX-1.1



Temporary Seeding Mix for Erosion Control	
Species	PLS*/ACRE
Western Wheatgrass	4
Bluebunch Wheatgrass	6
Intermediate Wheatgrass	4
Smooth Brome	3
Cicer Milkvetch	1
Sainfoin	2
Total	**20**
Permanent Seeding Mix for Erosion Control	
Species	PLS*/ACRE
Western Wheatgrass	5
Bluebunch Wheatgrass	7
Intermediate Wheatgrass	5
Smooth Brome	4
Cicer Milkvetch	2
Sainfoin	2
Arrowleaf Balsamroot	1
Mountain Sagebrush	2
Antelope Bitterbrush	2
Total	**30**
*pure live seed	



SCALE: 1" =80'

0 80 160 Feet

SHEET NOTES

1. DISTURBED AREAS TO BE TEMPORARILY SEEDED IF CONSTRUCTION DOES NOT CONTINUE IN 30 DAYS. APPROVED TEMPORARY SEEDING MIX CAN BE FOUND ON DETAIL SHEET EROS-3.
2. INSTALL TEMPORARY EROSION CONTROL MATTING ON ALL DISTURBED SLOPES OF 3H:1V PRIOR TO RE-VEGETATION TO CONTROL EROSION.
3. PERMANENT RE-VEGETATION MUST TAKE PLACE DURING THE FOLLOWING WINDOW: FROM 4,000'-6000', SEPT. 15 TO DEC.1; FROM 6,000' AND ABOVE, SEPT. 15 TO NOV. 15 PERMANENT RE-VEGETATION WILL CONSIST OF APPROVED SEEDING MIX FOUND ON DETAIL SHEET EROS-3.
4. SEEDBED SHOULD BE PREPARED PRIOR TO SEEDING. INVASIVE AND NON-NATIVE COMPETITION SPECIES MUST BE ELIMINATED FROM SEED BED THROUGH APPROVED US OF HERBICIDES TO ENCOURAGE PROPER RE-SEEDING SUCCESS.
5. SEEDBED SHOULD BE FIRM AND MOIST, SEEDS SHOULD BE SOWN TO A DEPTH BETWEEN 1/4" AND 1/2" DEEP. SEEDING MUST TAKE PLACE DURING WINDOW IDENTIFIED ABOVE.

SHEET LEGEND

PLAN REVISIONS

A.

RIMROCK ENGINEERING & DEVELOPMENT

CAD TECH:	CRS
DESIGNER:	CRS
Q&A:	JNS

CALL BLUE STAKES PRIOR TO DIGGING

PROJECT NAME

SCSA#3
CULINARY WATER 2026

SHEET NAME

CRESCENT
SITE PLAN

PLAN SUBMITTAL: DDW REVIEW

2/21/26

SHEET NUMBER

CS1.0

SHEET NOTES

1.

SHEET LEGEND

- EXIST POWER
- EXIST GAS
- EXIST WATER
- EXIST IRRIGATION
- EXIST SEWER
- EXIST TELEPHONE
- EXIST STORM DRAIN
- EXIST FIBER OPTIC
- EXIST FENCE
- EXIST EDGE OF ROAD
- EXIST MAJOR CONTOUR
- EXIST MINOR CONTOUR
- EXIST DITCH FLOW LINE
- NEW EDGE OF ROAD
- NEW MAJOR CONTOUR
- NEW MINOR CONTOUR
- NEW DITCH FLOW LINE
- NEW STRIPING
- NEW SEPARATION STRIP
- PROPERTY BOUNDARY
- UTILITY EASEMENT

PLAN REVISIONS

A.

RIMROCK ENGINEERING & DEVELOPMENT

CAD TECH:	CRS
DESIGNER:	CRS
Q&A:	JNS

CALL BLUE STAKES PRIOR TO DIGGING

PROJECT NAME

SILVER BULLET WELL HOUSE

SHEET NAME

SITE PLAN

PLAN SUBMITTAL: CONCEPTUAL

SCALE:	11"x17"	24"x36"
HORIZ.	1"=10'	1"=20'

3/23/26

SHEET NUMBER

SITE

Threatened and Endangered Species

U.S. Fish and Wildlife Species Survey and Consultation Letter

March 30, 2026

Field Office Supervisor
2369 W Orton Circle #50
West Valley City, UT 84119

RE: USFWS-listed Species Review for the Proposed Summit County Service Area #3 Culinary Water System Improvement Project, Summit County, Utah.

Field Office Supervisor:

On behalf of the Utah Division of Drinking Water (DDW) with support from Rimrock Engineering and Development, Cardinal EC is seeking your agency's comments regarding the proposed Summit County Service Area #3 Crescent Junction Culinary Water System Improvement Project (Proposed Project). The Proposed Project will be funded by the Utah Drinking Water Board from the Federal State Revolving Fund (SRF) administered by DDW. The DDW, through the SRF, is providing funding for the Proposed Project as part of a program to assist local utility providers with much-needed infrastructure and infrastructure improvements to improve the quality of life for rural residents. As part of this funding, DDW is required to evaluate USFWS-listed species, and if necessary, consult with USFWS directly, to ensure the agency is not undertaking, funding, permitting or authorizing actions that are likely to jeopardize the continued existence of USFWS-listed species or destroy or adversely modify designated critical habitat.

Summit County Service Area #3 (SCSA#3) is in the process of performing an environmental review pursuant to the National Environmental Policy Act (NEPA) for the DDW in order to assess the potential environmental impacts of the Proposed Project in Summit County, Utah. As part of this environmental review process, SCSA#3 has completed a review and field surveys to identify the presence or habitat capable of supporting U.S. Fish and Wildlife Service (USFWS)-listed or proposed species or designated or proposed critical habitat that may be present in the Proposed Project.

Following a data review and field surveys completed in October and November 2025, it is Cardinal EC's conclusion that the Proposed Project would result in no impacts to USFWS species listed threatened, endangered, candidate, or proposed under the Endangered Species Act due to the absence of habitats capable of supporting USFWS-listed species and the absence of designated or proposed critical habitat within the Proposed Project. It is Cardinal EC's request to seek USFWS's concurrence of our conclusion that the Proposed Project would have no effect on USFWS-listed or proposed species or designated critical habitats as no designated critical habitats occur in or near the Proposed Project.

Proposed Project

The Proposed Project is located approximately five miles north of Park City, Utah, in Township 1 South, Range 4 East in portions of section 9, 10, 15, and 16 (Figure 1). The Survey Area includes the entire Proposed Project which includes portions of the existing SCSA#3 residential water infrastructure and undeveloped private land. Its location is shown on Park City East, UT, and Park City West, UT U.S. Geological Survey (USGS) 7.5' quadrangle. The Survey Area includes approximately 17 acres including portions of the existing residential water infrastructure easements as well as areas where the proposed improvements would be located.

SCSA#3 has expressed interest in evaluating undeveloped areas adjacent to the existing SCSA infrastructure for expansion of their water supply system. While the final design of the Proposed Project and permitting are not complete, the expansion would entail construction within existing SCSA#3 easements and undeveloped lands. The Proposed Project could include, but is not limited to removal of vegetation, regrading, cut and fill, paving, and installation of facilities including:

- A new underground 750,000-gallon concrete storage tank;
- New storage tank access roadway;
- Approximately 8,800 feet of 6" to 10" buried waterlines;

- A new culinary water well and well house;
- System wide-fire flow improvements; and
- Well zone isolation and water chemistry study.

The Proposed Project will entail locating the drinking water system infrastructure upgrades adjacent to the existing SCSA#3 culinary water system infrastructure, on undeveloped land, and along existing roadways to maximize use of previously disturbed areas and easements within the adjacent community. Disturbance associated with replacement of existing or installation of new buried water line and temporary extra workspace would result in approximately 4.45 acres of temporary disturbance much of which is located within existing paved roadways, road easements, and the existing SCSA#3 waterline easements. As proposed, construction of the new below-ground water storage tank, well house, facilities parking, and service connections would result in disturbance to previously undisturbed areas supporting upland sagebrush pant communities. Approximately 0.21 acres would be permanently converted to above-ground facilities (access road, staging/parking areas, well house, and support infrastructure) and would remain disturbed for the life of the system. After construction of the Proposed Project is complete, the disturbed areas used for temporary extra workspace would be restored to the existing contour and use or reclaimed and reseeded to the extent practical.

During construction slow-moving machinery, vehicles, and workers would be restricted to the Proposed Project, shoulders of the roads, easements where existing SCSA#3 facilities are located, and new easements obtained for this Proposed Project. Ground disturbance would be minimized to the extent practical to existing SCSA#3 easements, along roadways, and temporary extra workspace to facilitate construction and staging. Following installation of the facilities, all disturbed areas would be restored to previous use or reclaimed and construction equipment and workers would leave the area as no other ground disturbing activities would be required. Following construction, the new SCSA#3 facilities would be integrated into the existing residential water supply system. Ground disturbance following construction is anticipated if the facilities are damaged and will be limited to the areas immediately around the damaged facilities.

USFWS-listed Species Review

In October 2025, a data review of the Survey Area (Attachment 1) was completed to identify the potential occurrence of USFWS-listed species and designated critical habitat using the USFWS' Information for Planning and Consultation (IPaC) website and Utah Division of Wildlife Resources (UDWR) Wildlife Habitat Analysis Tool. Findings from this review are detailed below in Table 1.

Table 1 – USFWS-listed Species Identified as Likely to Occur within the Proposed Project.

Species	Status	Habitat	Likelihood of Occurrence
Canada Lynx (Lynx canadensis)	T	Occur in montane coniferous forest. Alaska and Canada south through the Rocky Mountains, northern Great Lakes region, and northern New England with Uinta Mountains considered peripheral lynx habitat and have been documented to utilize this range.	**None**: Habitat to support this species does not occur in the Survey Area. This species could occur as a rare migratory visitor to the Survey Area; however, the proximity to human development would likely deter this species from occupying the Project.
North American wolverine (Gulo gulo luscus)	T	Wolverines live in cold, snowy habitats that include forests, grasslands, tundra, and rocky areas and prefer habitats undisturbed by humans.	**None**: Habitat to support this species does not occur in the Survey Area. This species could occur as a rare migratory visitor to the Survey Area; however, the proximity to human development would likely deter this species from occupying the Survey Area. This species was last documented near the Project in 1979 (UDWR 2025).

Table 1 – USFWS-listed Species Identified as Likely to Occur within the Proposed Project.

Species	Status	Habitat	Likelihood of Occurrence
Yellow-billed Cuckoo (Coccyzus americanus)	T	Occur in wooded habitat with dense cover and water nearby, including woodlands with low, scrubby, vegetation, overgrown orchards, abandoned farmland and dense thickets along streams and marshes	**None:** No habitat capable of supporting this species occurs in the Survey Area.
Monarch butterfly (Danaus plexippus)	PT	This species winters on the California coast and return north into summer breeding ranges in the interior west and British Columbia. This species is dependent upon milkweed plants for their lifecycle. Habitats include wetlands, prairies, agricultural areas and woodlands where milkweed grow.	**None:** No habitat (milkweed plants) capable of supporting this species occurs in the Survey Area. This species could occur as a migratory visitor to the Survey Area. This species was last documented near the Survey Area in 2022 (UDWR 2025).
Suckley's Cuckoo Bumble Bee (Bombus suckleyi)	PE	Occur in the habitats of its known host species, Bombus occidentalis, in open grassy areas, urban parks and gardens, chaparral and shrub areas, and mountain meadows.	None: None of this species suitable habitat was identified in the Survey Area. This species host, the western bumble bee (Bombus occidentalis) has been documented in the vicinity (UDWR 2025). The last confirmed sighting in Utah was over 20 years ago (Wiley 2023).
*Ute Ladies'-tresses (Spiranthes diluvialis)	T	Occur in moist environments including alkaline wetlands, moist meadows, floodplains, flooded river terraces, sub-irrigated or spring-fed abandoned stream channels and valleys, lakeshores, irrigation canals, berms, levees, or irrigated meadows. Known from northern and south-central Utah.	**None:** No habitat capable of supporting this species occurs in the Survey Area.
Status: T- Threatened, E – Endangered, P – Proposed, C – Candidate, EX – experimental non-essential population. Source: USFWS IPaC website review October 2025.			

USFWS-listed Species Identified as Potentially Occurring in the Project

Six USFWS-listed species were documented to potentially occur in the Survey Area based upon the data review using USFWS' IPaC website (USFWS 2025). An update to the IPaC consultation was again submitted in March 2026 and is attached below (USFWS 2026a). No designated critical habitat occurs in or near the Survey Area. Two USFWS-listed species, the monarch butterfly and North American wolverine, were identified as occurring near the Survey Area based on the UDWR Heritage Database review (UDWR 2025). Data review of the USFWS National Wetlands Inventory (NWI) data set identified the potential occurrence of habitat capable of supporting the Ute ladies'-tresses (USFWS 2026b). Cardinal EC completed a pedestrian inventory of the Survey Area plus 300-ft buffer in October and November 2025 to identify the presence of USFWS-listed species and habitat capable of supporting USFWS-listed species. No USFWS-listed species or habitat capable of supporting USFWS-listed species were identified within the Survey Area. Details of each species identified as potentially occurring in the Survey Area during the desktop review are discussed below.

Canada lynx

Habitat to support this species does not occur in the Survey Area. This species or habitat capable of supporting this species were not identified during the field survey. This species is not known to occur in the vicinity of the Survey Area (UDWR 2025). It is Cardinal EC's conclusion that the Proposed Project would not result in any direct or indirect impacts to this species or this species' habitat.

North American Wolverine

Habitat to support this species does not occur in the Survey Area. This species or habitat capable of supporting this species were not identified during the field survey. This species was documented in the vicinity of the Survey Area (UDWR 2025) and could be an incidental observation or an observation from less-developed areas north of the Proposed Project. It is Cardinal EC's conclusion that the Proposed Project would not result in any direct or indirect impacts to this species or this species' habitat.

Yellow-Billed Cuckoo

Habitat to support this species does not occur in the Survey Area. This species or habitat capable of supporting this species were not identified during the field survey. This species is not known to occur in the vicinity of the Survey Area (UDWR 2025). It is Cardinal EC's conclusion that the Proposed Project would not result in any direct or indirect impacts to this species or this species' habitat.

Monarch butterfly

Habitat to support this species does not occur in the Survey Area. This species or its' preferred forage were not identified during the field survey. This species has been documented to occur in the vicinity of the Project (UDWR 2025). It is Cardinal EC's conclusion that the Project is not likely jeopardize the continued existence of this species or destroy or adversely modify this species' habitat. As a proposed threatened species, the monarch butterfly is not afforded protection under the Endangered Species Act and is therefore ineligible for effect determinations under Section 7 Consultation with USFWS. This species has been removed from further consideration in this report.

Suckley's Cuckoo Bumble Bee

Habitat to support this species does not occur in the Survey Area. This species or its' preferred host were not identified during the field survey of the Project. This species host, the western bumblebee, has been documented to occur in the vicinity of the Survey Area (UDWR 2025). It is Cardinal EC's conclusion that the Project is not likely jeopardize the continued existence of this species or destroy or adversely modify this species' habitat. As a proposed endangered species, the Suckley's cuckoo bumble bee is not afforded protection under the Endangered Species Act and is therefore ineligible for effect determinations under Section 7 Consultation with USFWS. This species has been removed from further consideration in this report.

Ute ladies'-tresses

Data reviews completed prior to completing field surveys identified this species' potential habitat along a drainage features shown on the NWI dataset near the Greenfield Water Line, Greenfield Well, Whileaway Water Line, and Crescent Waterline & Tank Overflow/Drian sites (USFWS 2026b). This species is not known to occur in the near vicinity of the Proposed Project (UDWR 2025). Field investigations of the Proposed Project and 300-foot buffer concluded that these NWI features are topographic depressions identified as upland swales or ephemeral drainages which lack hydrology and herbaceous vegetation generally associated with this species habitat. It is Cardinal EC's conclusion that these features would not support these species as they are primarily dry ephemeral drainages or upland swales. Given that this species' habitat does not occur, it is Cardinal EC's conclusion that the Proposed Project would not result in any direct or indirect impacts to this species or this species' habitat.

Conclusion

The Proposed Project occurs on existing roadways and existing water system infrastructure easements within the adjacent community and on new, previously undisturbed sagebrush uplands obtained for the Proposed Project. Most of these areas would be subject to short-term impacts during construction (4.45 ac.) and would be reclaimed; however, some upland sagebrush vegetation habitat (0.21 ac.) would be permanently converted to above-ground facilities. Desktop reviews, field surveys, and analysis were completed to address the potential for USFWS-listed species and designated critical habitat to occur in the approximately 17-acre Survey Area surrounding the Proposed Project. Following the data review and field surveys, Cardinal EC concluded that no USFWS-listed species, habitat to support USFWS-listed species, or designated critical habitat occur in the Survey Area. It is Cardinal EC's conclusion that the Proposed Project would not result in any short or long-term impacts to USFWS-listed species or designated critical habitat during construction or operation. Cardinal EC is requesting concurrence from USFWS that the proposed project would have no effect on USFWS-listed species or designated critical habitat.

I would greatly appreciate notification if USFWS does or does not have an interest in the Proposed Project, as well as any comments or concerns you may have within 30 days. Should you have any additional interest in the Proposed Project, I will provide you with additional information pursuant to NEPA as it becomes available. Please provide your notification of interest and any comments or concerns by email at aaron.james@cardinal-ec.com, or I can also be reached by telephone at 801-719-9132. If you prefer, you may also contact the DDW project manager Allyson Spevak by email at allysonspevak@utah.gov or by telephone at 801-536-4200.

Sincerely,

Aaron M. James
Principal
Cardinal EC

Attachments:

Attachment 1 – Project Overview Topographic and Aerial Map
Attachment 2 – Project Design Figures
Attachment 3 – Project Photographs
Attachment 4 – USFWS and UDWR Data Review

References:

Utah Division of Wildlife Resources (UDWR). 2025. Wildlife Habitat Analysis Tool. Available at: https://what.wildlife.utah.gov/.

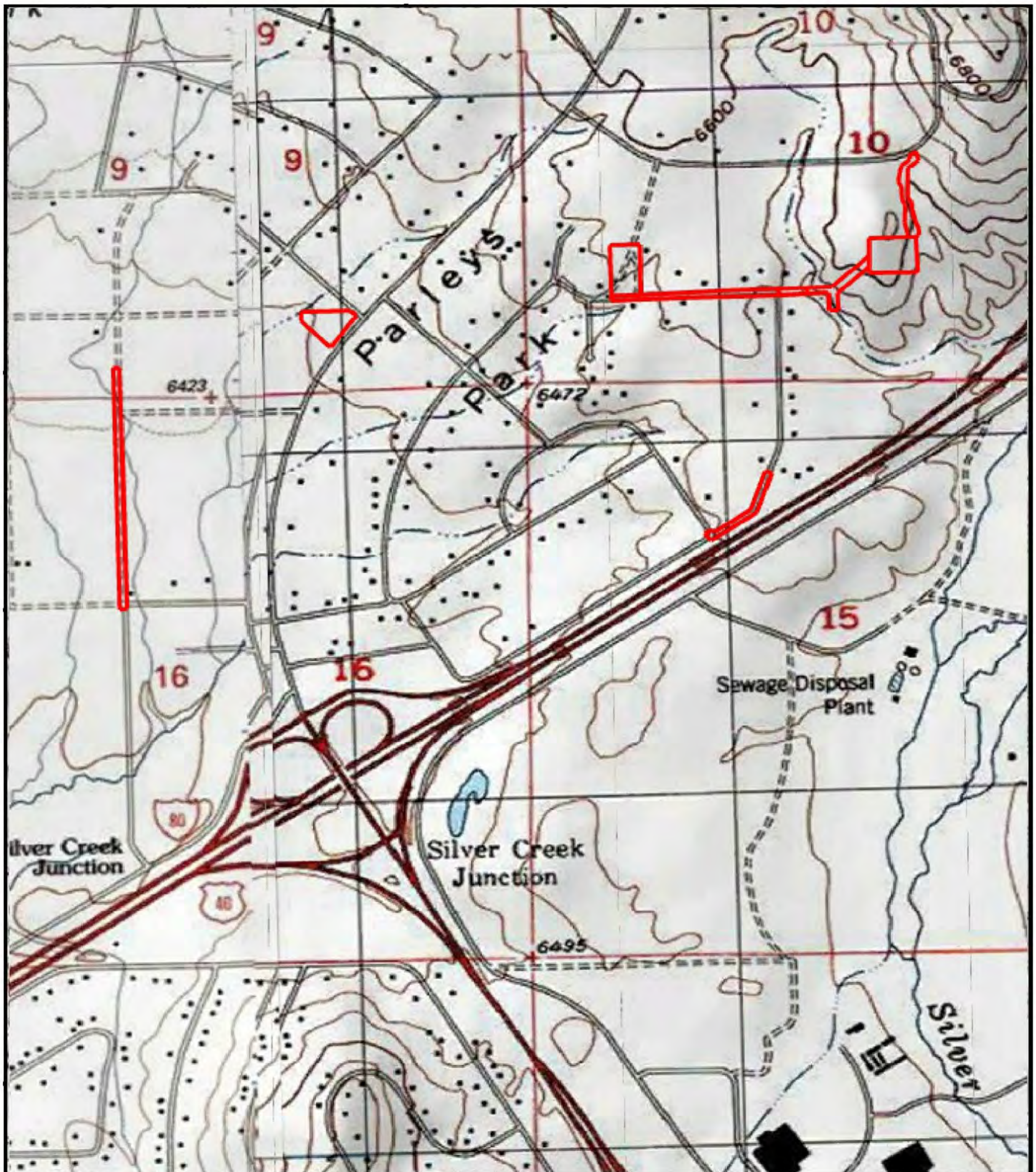
United States Department of the Interior, United States Fish and Wildlife Service (USFWS). 2025. Information Planning and Consultation (IPaC). Completed November 2025. Available at: https://ipac.ecosphere.fws.gov/.

USFWS. 2026a. Information Planning and Consultation (IPaC). Completed March 2026. Available at: https://ipac.ecosphere.fws.gov/.

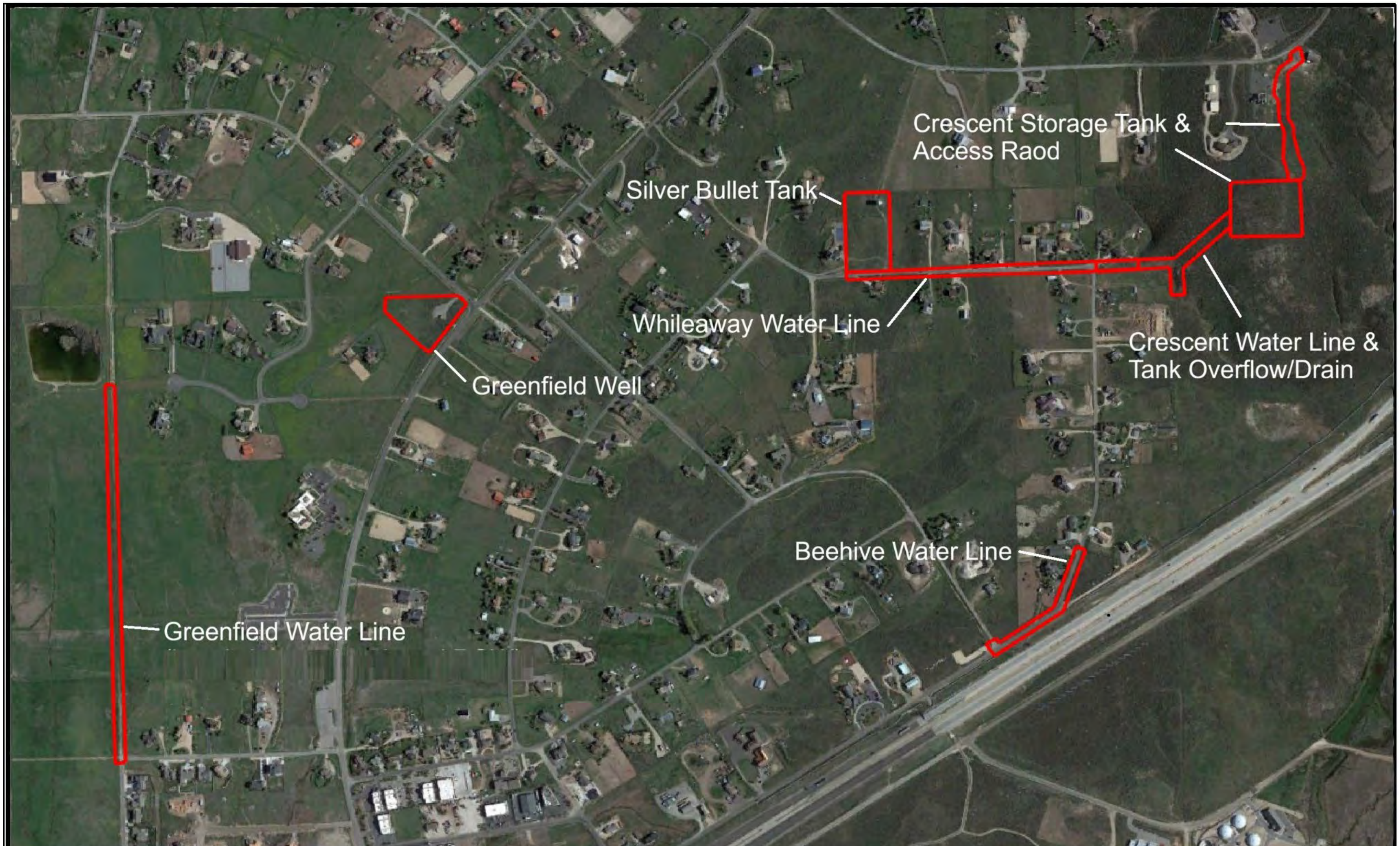
USFWS. 2026b. National Wetlands Inventory (NWI) Mapper. Available online at http://www.fws.gov/wetlands/data/mapper.

SCSA#3 Culinary Water Improvement Project

Attachment 1 – Project Overview Topographic and Aerial Maps



Legend	SCSA#3 Culinary Water Improvement Project		Summit County, UT T1S R4E
Project \ Survey Area	CARDINAL ECO	0 — 1.0 mi	N
	USGS Topographic 7.5" Map - Park City East / Park City West, UT		



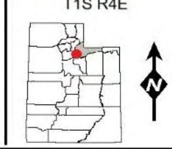
Legend

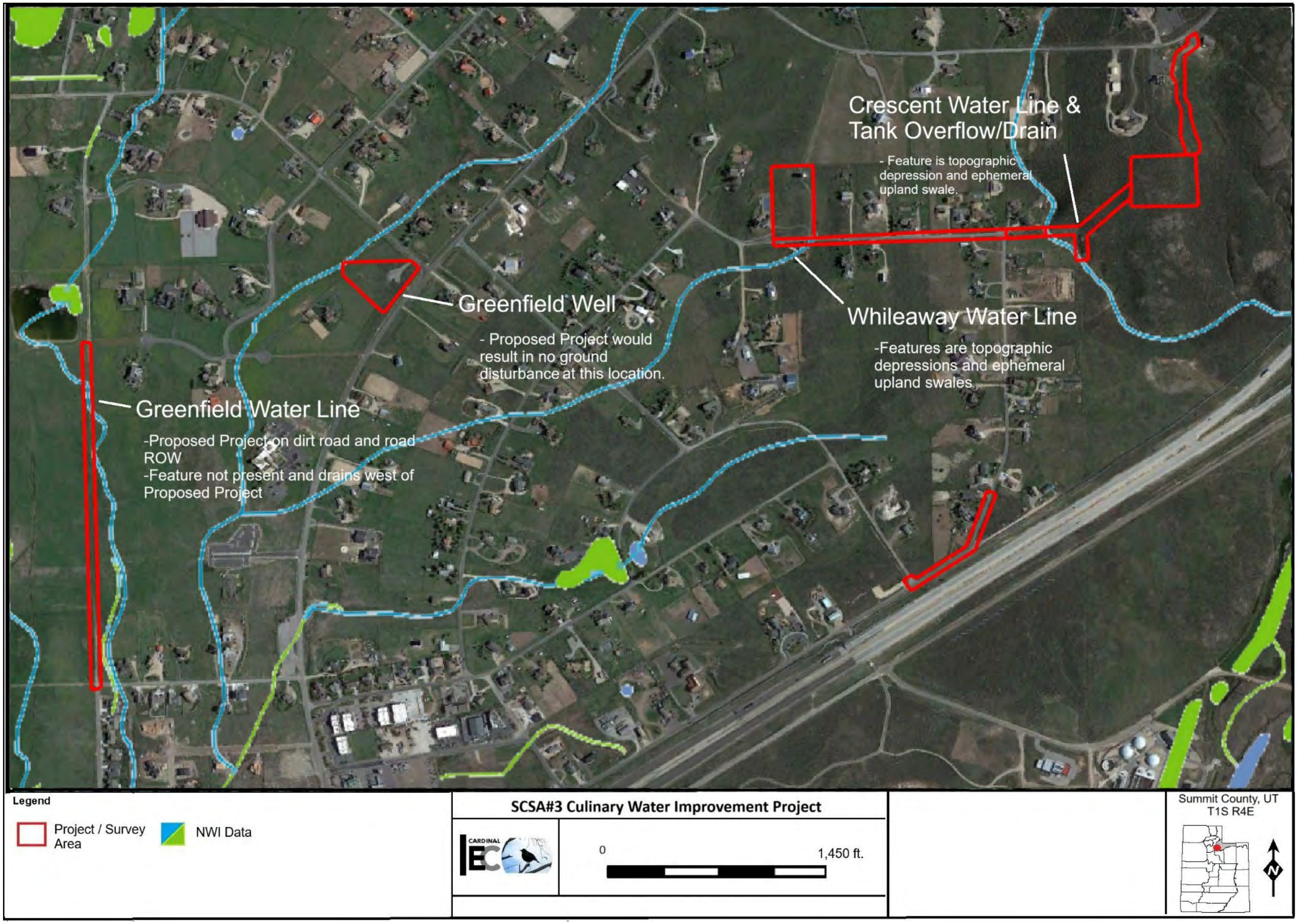
Survey Area

SCSA#3 Culinary Water Improvement Project

0 1,500 ft.

Summit County, UT
T1S R4E





Crescent Water Line &
Tank Overflow/Drain
- Feature is topographic
depression and ephemeral
upland swale.
Greenfield Well
- Proposed Project would
result in no ground
disturbance at this location.
Whileaway Water Line
-Features are topographic
depressions and ephemeral
upland swales
Greenfield Water Line
-Proposed Project on dirt road and road
ROW
-Feature not present and drains west of
Proposed Project
Legend
Project / Survey
Area
NWI Data
SCSA#3 Culinary Water Improvement Project
CARDINAL
0
1,450 ft.
Summit County, UT
T1S R4E
N

SCSA#3 Culinary Water Improvement Project

Attachment 2 – Preliminary Design Concept Plan

SHEET NOTES

SHEET LEGEND

PLAN REVISIONS

A. ADDED SILVER BULLET SHEET FOR REFERENCE

RIMROCK ENGINEERING & DEVELOPMENT

CAD TECH:	CRS
DESIGNER:	CRS
Q&A:	JNS

CALL BLUE STAKES PRIOR TO DIGGING

PROJECT NAME

SCSA#3
CULINARY WATER 2026

SHEET NAME

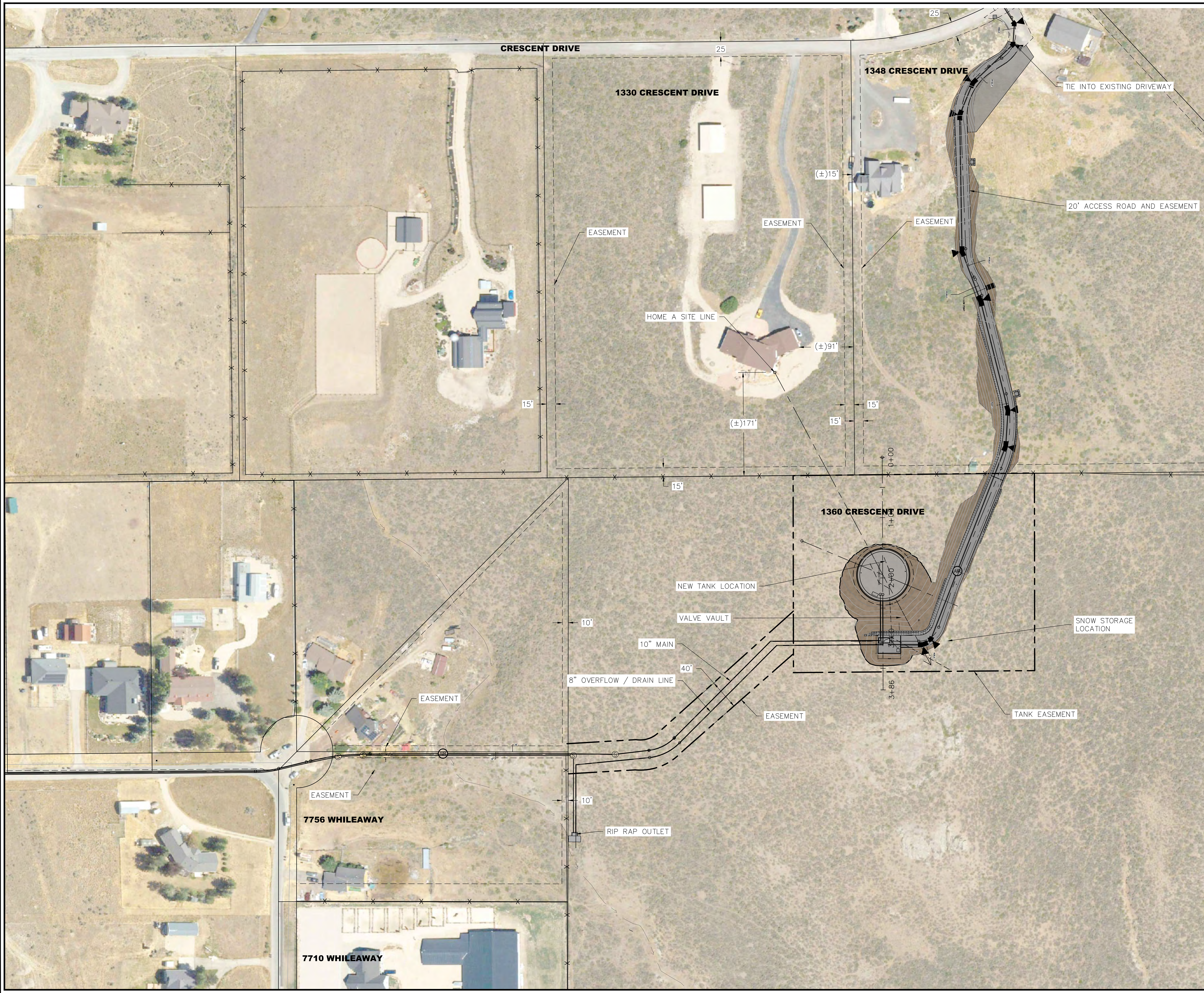
OVERALL INDEX SHEET

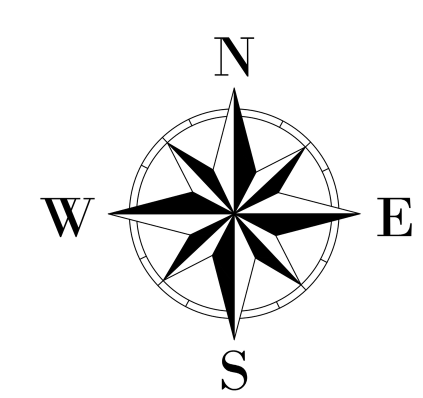
PLAN SUBMITTAL: DDW REVIEW

2/20/26

SHEET NUMBER

INDEX-1.1





SCALE: 1" =80'

0 80 160 Feet

Temporary Seeding Mix for Erosion Control	
Species	PLS*/ACRE
Western Wheatgrass	4
Bluebunch Wheatgrass	6
Intermediate Wheatgrass	4
Smooth Brome	3
Cicer Milkvetch	1
Sainfoin	2
Total	**20**
Permanent Seeding Mix for Erosion Control	
Species	PLS*/ACRE
Western Wheatgrass	5
Bluebunch Wheatgrass	7
Intermediate Wheatgrass	5
Smooth Brome	4
Cicer Milkvetch	2
Sainfoin	2
Arrowleaf Balsamroot	1
Mountain Sagebrush	2
Antelope Bitterbrush	2
Total	**30**
*pure live seed	

SHEET NOTES

1. DISTURBED AREAS TO BE TEMPORARILY SEEDED IF CONSTRUCTION DOES NOT CONTINUE IN 30 DAYS. APPROVED TEMPORARY SEEDING MIX CAN BE FOUND ON DETAIL SHEET EROS-3.
2. INSTALL TEMPORARY EROSION CONTROL MATTING ON ALL DISTURBED SLOPES OF 3H:1V PRIOR TO RE-VEGETATION TO CONTROL EROSION.
3. PERMANENT RE-VEGETATION MUST TAKE PLACE DURING THE FOLLOWING WINDOW: FROM 4,000'-6000', SEPT. 15 TO DEC.1; FROM 6,000' AND ABOVE, SEPT. 15 TO NOV. 15 PERMANENT RE-VEGETATION WILL CONSIST OF APPROVED SEEDING MIX FOUND ON DETAIL SHEET EROS-3.
4. SEEDBED SHOULD BE PREPARED PRIOR TO SEEDING. INVASIVE AND NON-NATIVE COMPETITION SPECIES MUST BE ELIMINATED FROM SEED BED THROUGH APPROVED US OF HERBICIDES TO ENCOURAGE PROPER RE-SEEDING SUCCESS.
5. SEEDBED SHOULD BE FIRM AND MOIST, SEEDS SHOULD BE SOWN TO A DEPTH BETWEEN 1/4" AND 1/2" DEEP. SEEDING MUST TAKE PLACE DURING WINDOW IDENTIFIED ABOVE.

SHEET LEGEND

PLAN REVISIONS
A.

RIMROCK ENGINEERING & DEVELOPMENT

CAD TECH:	CRS
DESIGNER:	CRS
Q&A:	JNS

CALL BLUE STAKES PRIOR TO DIGGING

PROJECT NAME
SCSA#3 CULINARY WATER 2026

SHEET NAME
CRESCENT SITE PLAN

PLAN SUBMITTAL: DDW REVIEW

2/21/26

SHEET NUMBER
CS1.0

SHEET NOTES

1.

SHEET LEGEND

PWR	EXIST POWER
G	EXIST GAS
	EXIST WATER
IRR	EXIST IRRIGATION
	EXIST SEWER
TEL	EXIST TELEPHONE
	EXIST STORM DRAIN
	EXIST FIBER OPTIC
	EXIST FENCE
	EXIST EDGE OF ROAD
	EXIST MAJOR CONTOUR
	EXIST MINOR CONTOUR
	EXIST DITCH FLOW LINE
	NEW EDGE OF ROAD
	NEW MAJOR CONTOUR
	NEW MINOR CONTOUR
	NEW DITCH FLOW LINE
	NEW STRIPING
	NEW SEPARATION STRIP
	PROPERTY BOUNDARY
	UTILITY EASEMENT

PLAN REVISIONS

A.

RIMROCK ENGINEERING & DEVELOPMENT

CAD TECH:	CRS
DESIGNER:	CRS
Q&A:	JNS

CALL BLUE STAKES PRIOR TO DIGGING

PROJECT NAME

SILVER BULLET WELL HOUSE

SHEET NAME

SITE PLAN

PLAN SUBMITTAL: CONCEPTUAL

SCALE:

	11"x17"	24"x36"
HORIZ.	1"=10'	1"=20'

3/23/26

SHEET NUMBER

SITE

SCSA#3 Culinary Water Improvement Project

Attachment 3 – Project Photographs

Photographs of SCSA#3 Proposed Project. October 2025 / November 2025 Field Survey

Greenfield Water Line Site. Proposed Project waterline would be installed in dirt road and road easement and reclaimed entirely. View South.

Greenfield Water Line Site. Proposed Project waterline would be installed in dirt road and road easement and reclaimed entirely. Photo depicts location of NWI data feature crossing location. View North

Greenfield Water Line Site. Proposed Project waterline would be installed in dirt road and road easement and reclaimed entirely. Photo depicts location of NWI data crossing location. View South

Greenfield Water Line Site. Proposed Project waterline would be installed in dirt road and road easement and reclaimed entirely. View North.

Photographs of SCSA#3 Proposed Project. October 2025 / November 2025 Field Survey

Greenfield Water Line Site. Proposed Project waterline would be installed in roadway and road easement and reclaimed.

Greenfield Water Line Site. Proposed Project waterline would be installed in roadway and road easement and reclaimed.

Greenfield Well Site. Proposed Project would not result in any additional ground disturbance to this site. Existing well house and parking are pictured in background.

Greenfield Well Site. Proposed Project would not result in any additional ground disturbance to this site. Existing well house and parking pictured.

Photographs of SCSA#3 Proposed Project. October 2025 / November 2025 Field Survey

Silver Bullet Tank Site. Disturbed sagebrush habitat and reclamation grasses present. Proposed Project includes new well and well house ~0.01 ac permanent disturbance all other areas will be reclaimed.

Silver Bullet Tank Site. Disturbed sagebrush habitat and reclamation grasses present. Proposed Project includes new well and well house ~0.01 ac permanent disturbance all other areas will be reclaimed.

Eastern NWI feature that crosses Whileaway Water Line Site. Proposed Project waterline would be installed in road easement.. Photo depicts upland topographic depression – upland swale. View North.

Western NWI features that crosses Crescent Water Line & Tank Overflow/Drain Site. Proposed Project waterline crosses at this location in new easement. Photo depicts upland topographic depression/ephemeral drainage/swale with upland vegetation

Photographs of SCSA#3 Proposed Project. October 2025 / November 2025 Field Survey

Whileaway Water Line Site. Proposed Project waterline would be installed entirely in roadway

Beehive Water Line Site. Proposed Project waterline would be installed in roadway and road easement. View East

Crescent Water Tank and Access. Proposed Project waterlines would be installed in previously undisturbed sagebrush vegetation. Easement and buried water line will be reclaimed, and revegetated. New tank will be buried and revegetated. Access road and parking will result in 0.20 ac. of permanent above-ground facilities.

Crescent Water Tank and Access. Proposed Project waterlines would be installed in previously undisturbed sagebrush vegetation. Easement and buried water line will be reclaimed and revegetated. New tank will be buried and revegetated. Access road and parking will result in 0.20 ac. of permanent above-ground facilities.

Photographs of SCSA#3 Proposed Project. October 2025 / November 2025 Field Survey

New Storage Tank Site. Proposed Project storage tank would be installed in previously undisturbed easement, much of which would reclaimed and revegetated. Storage tank and parking would permanently remove sagebrush vegetation community.

New Storage Tank Site. Proposed Project storage tank would be installed in previously undisturbed easement, much of which would reclaimed and revegetated. Storage tank and parking would permanently remove sagebrush vegetation community.

New Access Road and Waterlines Site. Proposed Project tank access road would be installed in previously undisturbed easement which would permanently remove disturbed sagebrush vegetation community.

SCSA#3 Culinary Water Improvement Project

Attachment 4 – USFWS and UDWR Data Review

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Utah Ecological Services Field Office
2369 West Orton Circle, Suite 50
West Valley City, UT 84119-7603
Phone: (801) 975-3330 Fax: (801) 975-3331
https://fws.gov/office/utah-ecological-services

In Reply Refer To: 03/23/2026 17:49:16 UTC
Project Code: 2026-0001887
Project Name: SCSA Municipal Residential Water Supply Improvements

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Utah Ecological Services Field Office
2369 West Orton Circle, Suite 50
West Valley City, UT 84119-7603
(801) 975-3330

PROJECT SUMMARY

Project Code: 2026-0001887
Project Name: SCSA Municipal Residential Water Supply Improvements
Project Type: Water Supply Facility - Maintenance / Modification
Project Description: SCSA Municipal Residential Water Supply Improvements
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@40.7440381,-111.49371334116537,14z

Counties: Summit County, Utah

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Canada Lynx *Lynx canadensis* Population: Wherever Found in Contiguous U.S. There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3652	Threatened
North American Wolverine *Gulo gulo luscus* No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ Species may be present based on transient occurrence as it moves through or too suitable habitat. Effects should be considered to species and projects should consult with the Service, however, depending on the project, consultation may not be necessary. Species profile: https://ecos.fws.gov/ecp/species/5123	Threatened

BIRDS

NAME	STATUS
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Suckley's Cuckoo Bumble Bee *Bombus suckleyi* Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10885	Proposed Endangered

FLOWERING PLANTS

NAME	STATUS
Ute Ladies'-tresses *Spiranthes diluvialis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2159	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Aaron James
Address: 12080 East Big Cottonwood Canyon
City: Solitude
State: UT
Zip: 84121
Email aaron.james@cardinal-ec.com
Phone: 8017199132

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Environmental Protection Agency

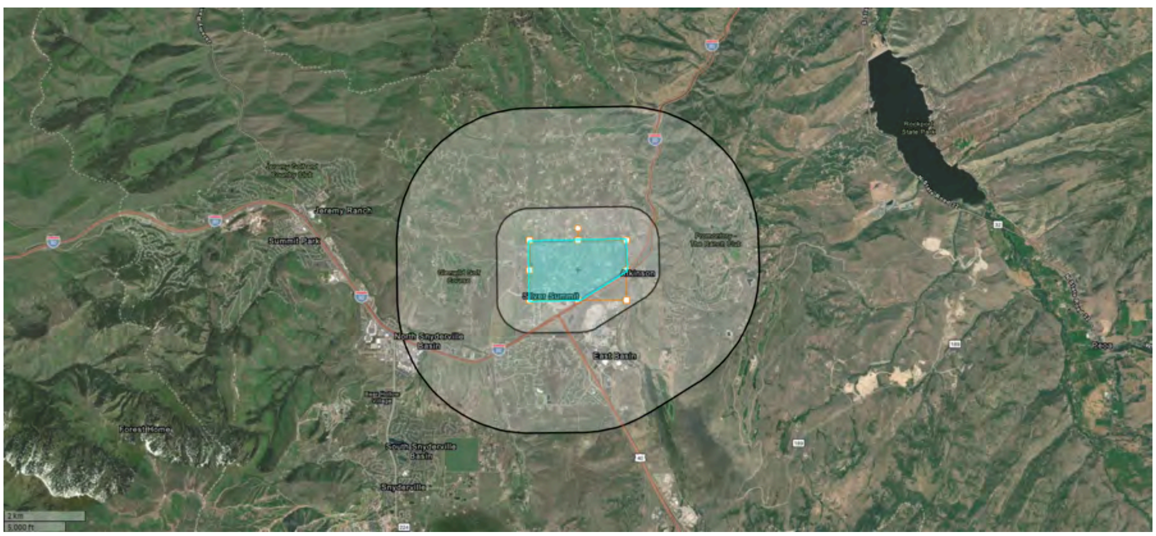
Utah Division of Wildlife Resources
1594 W. North Temple
Salt Lake City, UT 84116
(801) 538-4700, wildlife.utah.gov

Report Number: car_17909

Report Date: 2025-10-06 18:19:56

SCSD Culinary Water Improvements

Location: Park City, UT
Description: Improvements to existing culinary water supply



Project Area of Interest with a half-mile and two-mile radius.

Definitions

State Status	
SGCN, SGIN	Species of greatest conservation need (SGCN) or the special subcategory, species of greatest Information need (SGIN), are listed in the Utah Wildlife Action Plan (UWAP) and also included in the Utah Field Guide
U.S. Endangered Species Act	
LE	A taxon that is listed by the U.S. Fish and Wildlife Service as "endangered" with the probability of worldwide extinction

LT	A taxon that is listed by the U.S. Fish and Wildlife Service as "threatened" with becoming endangered
LE;XN	An "endangered" taxon that is considered by the U.S. Fish and Wildlife Service to be "experimental and nonessential" in its designated use areas in Utah
C	A taxon for which the U.S. Fish and Wildlife Service has on file sufficient information on biological vulnerability and threats to justify it being a "candidate" for listing as endangered or threatened
PT/PE	A taxon "proposed" to be listed as "endangered" or "threatened" by the U.S. Fish and Wildlife Service

Species Distribution and Habitat Suitability Models

Species distribution and habitat suitability models (SDHMs) can inform wildlife management decisions such as habitat protection, enhancement, and restoration. They may also help assess environmental impacts by identifying species' habitats. When reevaluating SDHMs with new information, they can help identify or track changes or trends in habitat quality. SDHMs assess habitats' spatial arrangement and connectivity, identify crucial habitats, or describe the environmental conditions a species selects. SDHMs provide an understanding of the impacts of invasive species spread and identify suitable areas for species translocations/re-introductions.

SDHMs show a predicted suitable habitat for a species based on various biotic and abiotic environmental factors. These models may be useful for statewide evaluation but should not be considered verified species presence or absence. Field survey information should be utilized to verify the presence or absence of taxa when making species-specific decisions. Models produced by the Utah Division of Wildlife Resources (DWR) were conducted using a blend of Generalized Linear Models, Generalized Additive Models, Random Forest Models, Boosted Regression Tree Models, and Maximum Entropy Models.

Mitigation Strategies

Typical recommendations to consider and help guide project activities to avoid, minimize or mitigate impacts on wildlife and their habitats from project disturbances are displayed below for some wildlife species found within/near your project area.

Common Name	Strategy
mule deer	Avoid disturbance in crucial summer range during fawning May 15 - July 15. Avoid, minimize or mitigate impacts from large-scale development that occur within crucial elk habitats. Voluntary mitigation is recommended at a 4:1 ratio, meaning 4 acres of improved or conserved habitat for every 1 acre of disturbance.

The DWR understands that mitigation strategies might conflict. Please reach out to DWR staff to develop strategies to minimize impacts on wildlife while still achieving project goals. Your project is located in the following UDWR region(s):

DWR Region Full Name	Regional Phone	Impact Analysis Biologist	Email	Phone
Central Region	801-491-5678	Josee Seamons	jseamons@utah.gov	385-421-1277
Northern Region	801-476-2740	Sarah Kapel	skapel@utah.gov	801-476-2740

Wildlife Action Plan

The Utah Wildlife Action Plan (UWAP) is Utah's guiding document for native species conservation. The DWR encourages parties to use the UWAP in their environmental planning, as it provides a conservation framework to prevent future listings under the ESA.

Disclaimer

The information provided in this report is based on data existing in the Utah Division of Wildlife Resources' central database at the time of the request. It should not be regarded as a final statement on the occurrence of any species on or near the designated site, nor should it be considered a substitute for on-the-ground biological surveys. Moreover, because the Utah Division of Wildlife Resources' central database is continually updated, any given response is only appropriate for its respective request.

The Utah DWR provides no warranty nor accepts any liability occurring from any incorrect, incomplete, or misleading data or from any incorrect, incomplete, or misleading use of these data.

The results include a query of species tracked by the Utah Natural Heritage Program and Utah Division of Wildlife Resources, which includes all species listed under the U.S. Endangered Species Act, species in the Utah Wildlife Action Plan, and other species. Other significant wildlife values might also be present on the designated site.

For additional information about species listed under the Endangered Species Act and their Critical Habitats that may be affected by activities in this area or for information about Section 7 consultation under the Endangered Species Act, please visit https://ecos.fws.gov/ipac/ or contact the U.S. Fish and Wildlife Service Utah Ecological Services Field Office at (801) 975-3330 or utahfieldoffice_esa@fws.gov.

The "Not For Consultation" watermark is meant to inform users that this tool is not a substitute for the U.S. Fish and Wildlife Service (USFWS) environmental review process. While this tool provides courtesy information on ESA species for context, the U.S. Fish and Wildlife Service is the authority on Information for Planning and Consultation Endangered Species Act Reviews. Additionally, the Wildlife Habitat Analysis Tool provides information to assist in analysis but does not replace coordination and consultation with Utah Division of Wildlife Resource biologists who can often serve as an expert resource for site-specific information.

Supplemental Data

Wildlife Crossings

Target Species	Crossing Type	Picture 1
Mule Deer	underpass	image

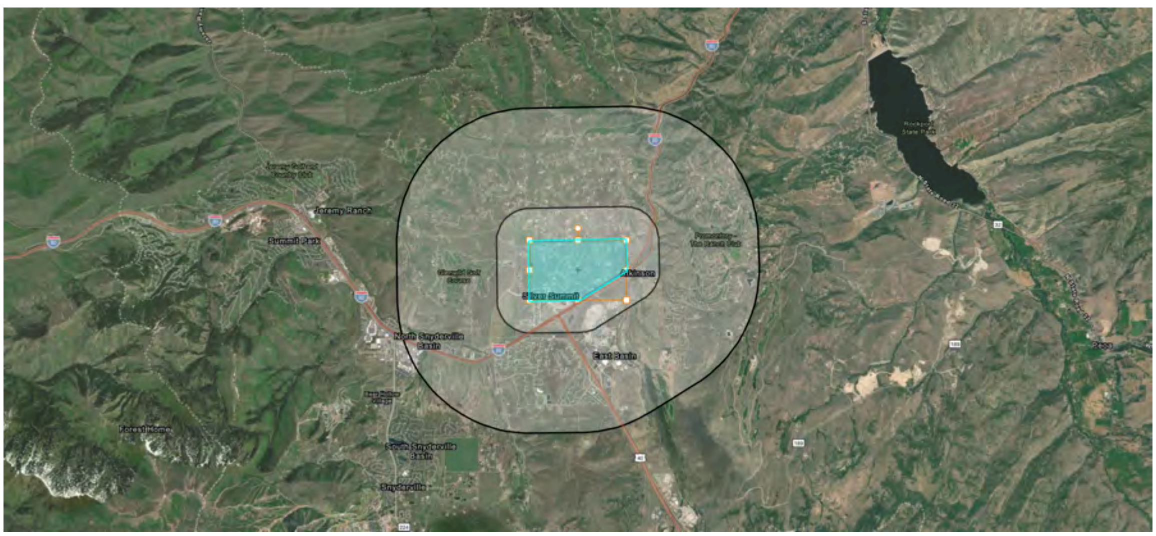
Unmapped Corridors

Unmodeled Corridors:	Present

Wildlife Habitat Information

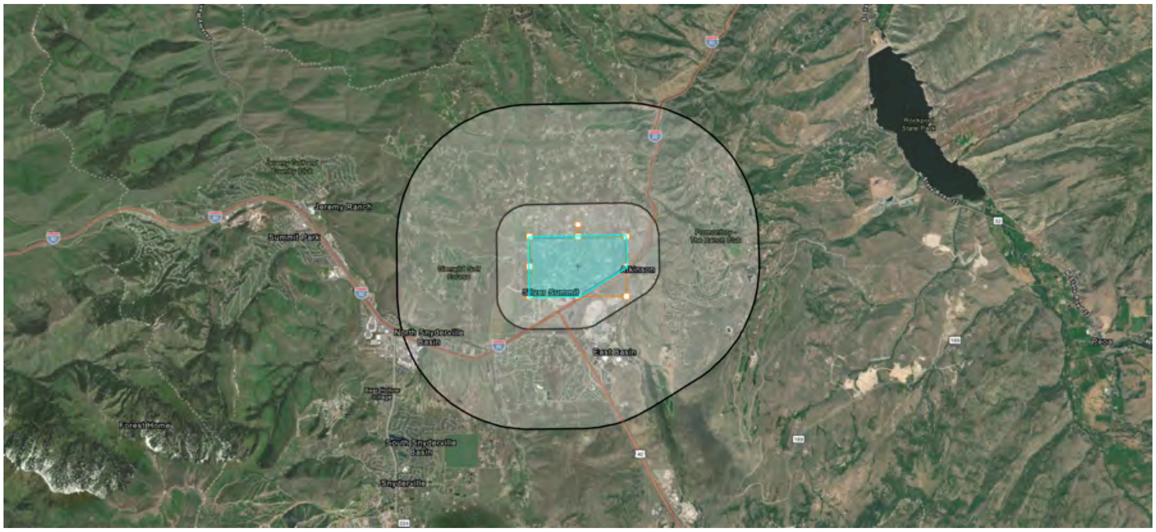
Species	Season	Value	Comments
Black Bear	year-long	crucial	
Dusky Grouse	year-long	crucial	
Mule Deer	summer	crucial	
Ruffed Grouse	year-long	substantial	
Snowshoe Hare	year-long	substantial	
White-Tailed Jackrabbit	year-long		

Mule Deer Habitat



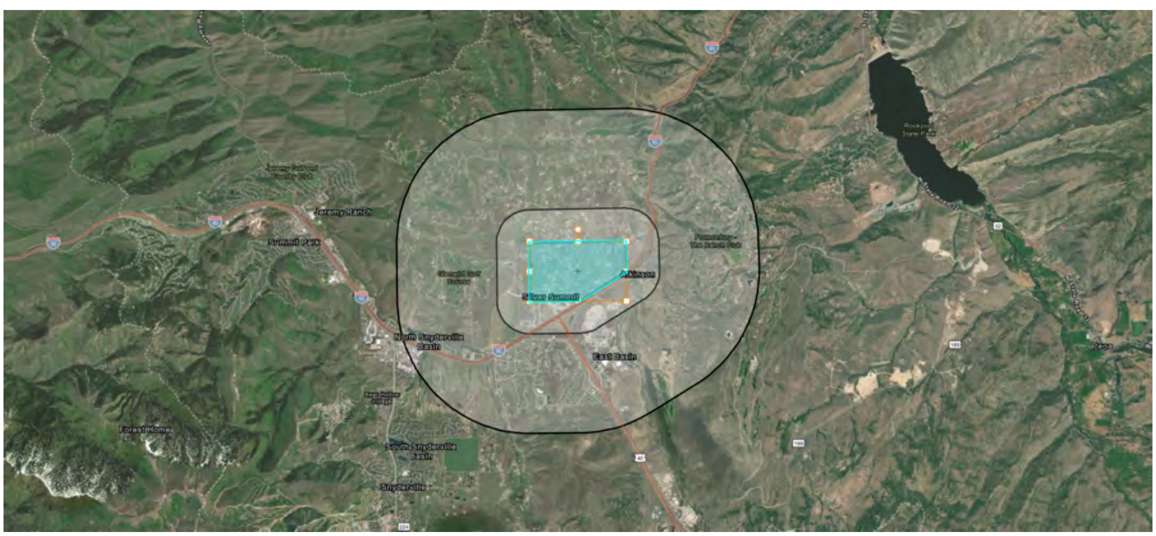
Comments	Season	Species	Value
	summer	Mule Deer	crucial

Wildlife Crossings



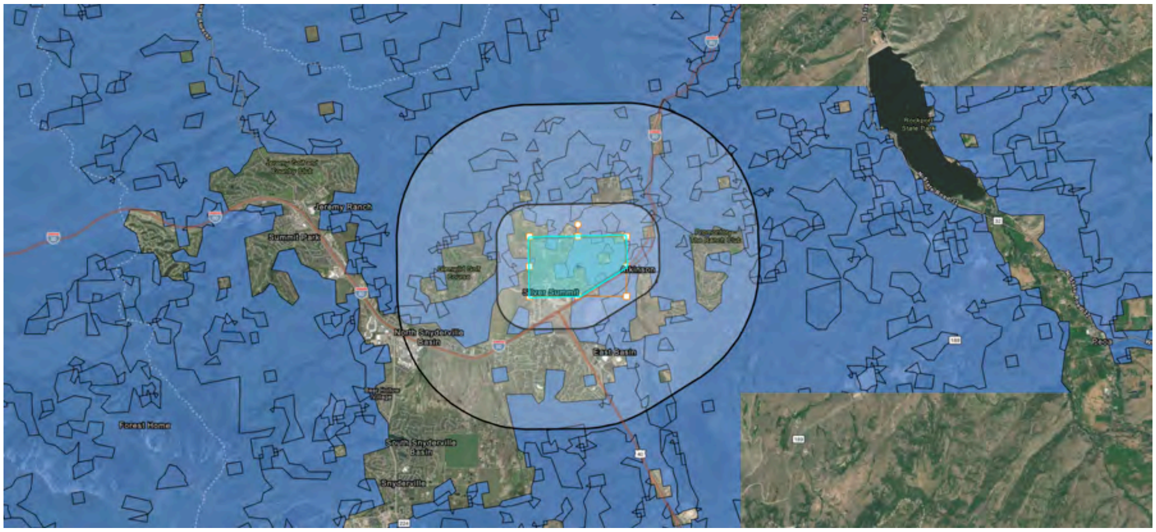
Picture 1	Associated Mitigation Measures	Crossing Type	Target Species
[image]	Fence	underpass	Mule Deer

Unmapped Mule Deer Migration Corridors



Species
Mule Deer

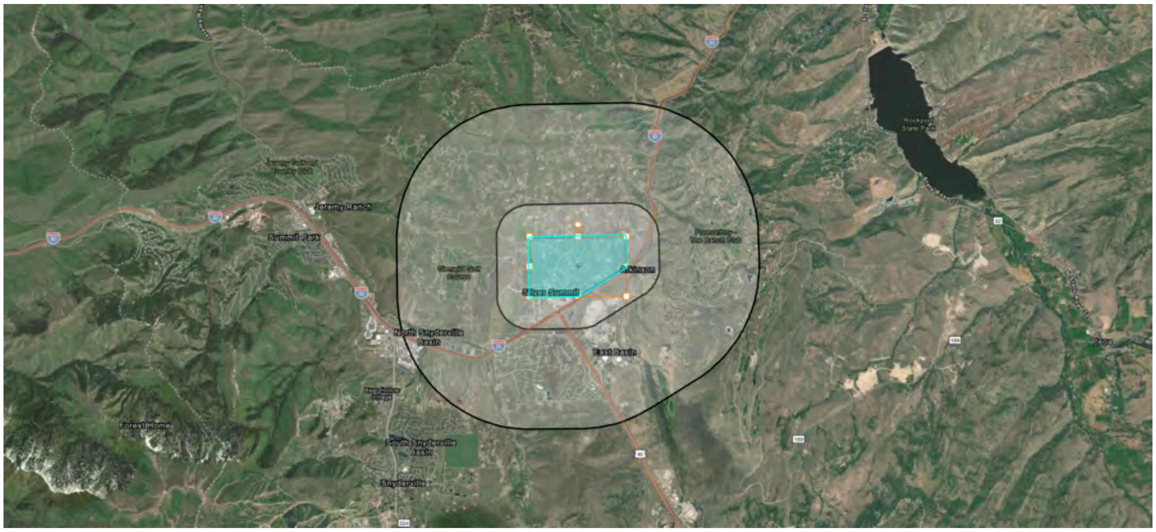
Terrestrial Key Habitat



Description: These polygons representing 13 terrestrial key habitats have been generalized for web mapping applications, and often under-represent the presence of key habitats, particularly small areas of discontinuous habitat.

Habitat Name
Lowland Sagebrush
Mountain Sagebrush
Mountain Shrub
Riparian
Subalpine Grassland

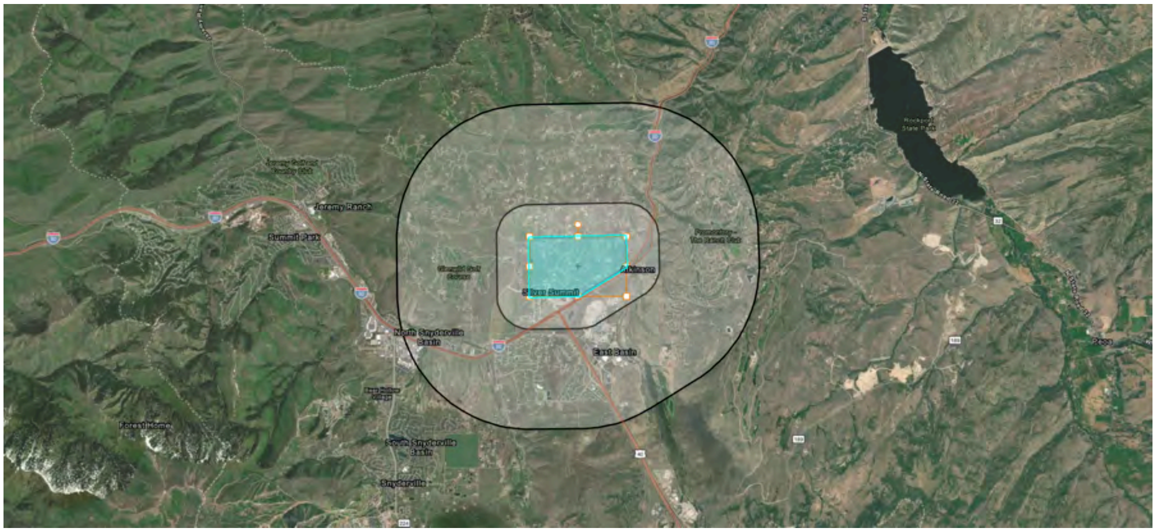
Rivers and Streams



Description: Lineworks copied directly from NHDHighRes data that's present on SGID10 database. UDWR Water Names and Water Id's have been assigned to the features. Original NHD features copied from the NHDHighRes feature class around 2014. Please note that some of the line work could of been captured prior to 2014 and be from an earlier version of the NHDHighRes data set. Permanent_Identifier and ReachCode were copied directly from the NHDHighRes data set. Updated on 10/01/2019 to remove duplicates linework.

Water Name
SILVER CR
SILVER CR
SILVER CR
SILVER CR
SILVER CR

Springs



Description: This feature class contains a subset of springs extracted from the Springs Stewardship Institute Springs Online database (http://springsdata.org), exported at 12:07:06 hrs, Saturday, December 24, 2022 from Springs Online. Each record in the feature class has a unique SiteID assigned by the online database. This feature class is related to the primary table, tbl_Surveys, in a one to many relationship.

Site Name
72141161 NHD_ID

Report Generated For

Name: Aaron Matthew James
Organization: Cardinal EC
Email: aaron.james@cardinal-ec.com
Phone: (801)-719-9132

End of Report

Thank you for using the Utah Wildlife Habitat Analysis tool. Feel free to reach out to the department for additional information or assistance.

Archaeological, Cultural, and Historic Resources

Utah State Historic Preservation Office Response Letter

Spencer J. Cox
Governor

Deidre M. Henderson
Lieutenant Governor

Donna Law
Interim Executive Director

Utah SHPO

Christopher Merritt
State Historic Preservation Officer
Utah State Historic Preservation Office

November 5, 2025

Michael J. Grange
Assistant Executive Secretary
Utah Dept of Environmental Quality - Drinking Water, Division of
Salt Lake City, Utah 84114

RE: Summit County Service Area #3 Drinking Water Infrastructure Improvements

For future correspondence, please reference Case No. 25-2180

Dear Michael Grange,

The Utah State Historic Preservation Office received your submission and request for our comment on the above-referenced undertaking on November 04, 2025.

We concur with your determination of effect for this undertaking.

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

Sincerely,

Ryan P McGrath

Ryan McGrath
Compliance Archaeologist

Spencer J. Cox
Governor

Deidre M. Henderson
Lieutenant Governor

Donna Law
Interim Executive Director

Utah SHPO

Christopher Merritt
State Historic Preservation Officer
Utah State Historic Preservation Office

April 14, 2026

Michael J. Grange
Assistant Executive Secretary
Utah Dept of Environmental Quality - Drinking Water, Division of
Salt Lake City, Utah 84114

RE: Summit County Service Area #3 - Addendum #1

For future correspondence, please reference Case No. 26-0600

Dear Michael J. Grange,

The Utah State Historic Preservation Office received your request for our comment on the above-referenced undertaking on April 09, 2026.

From the information you provided, it appears that no cultural resources were located in the undertaking's Area of Potential Effects. As such, we concur with your determination of "No Historic Properties Affected" for this undertaking as per §36CFR800.4(d)(1).

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

Sincerely,

Ryan P McGrath

Ryan McGrath
Compliance Archaeologist

Spencer J. Cox
Governor

Deidre M. Henderson
Lieutenant Governor

Donna Law
Interim Executive Director

Utah SHPO

Christopher Merritt
State Historic Preservation Officer
Utah State Historic Preservation Office

April 5, 2026

Michael J. Grange
Assistant Executive Secretary
Utah Dept of Environmental Quality - Drinking Water, Division of
Salt Lake City, Utah 84114

RE: Summit County Service Area #3 - Addendum #2

For future correspondence, please reference Case No. 26-0528

Dear Michael Grange,

The Utah State Historic Preservation Office received your submission and request for our comment on the above-referenced undertaking on April 01, 2026.

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

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

Sincerely,

Ryan P McGrath

Ryan McGrath
Compliance Archaeologist

Wetlands

U.S. Army Corps of Engineers Consultation Letter and Response

March 31, 2026

Connor Jones
U.S. Army Corps of Engineers
Bountiful Field Office
533 West 2600 South, Ste 150
Bountiful, UT 84010-7744

RE: Aquatic Resources Review for the Proposed Summit County Service Area #3 Culinary Water System Improvement Project, Summit County, Utah.

Mr. Jones,

On behalf of the Utah Division of Drinking Water (DDW) with support from Rimrock Engineering and Development, Cardinal EC is seeking your agency's comments regarding the proposed Summit County Service Area #3 (SCSA#3) Crescent Junction Culinary Water System Improvement Project (Proposed Project). The Proposed Project will be funded by the Utah Drinking Water Board from the Federal State Revolving Fund (SRF) administered by DDW. The DDW, through the SRF, is providing funding for the Proposed Project as part of a program to assist local utility providers with much-needed infrastructure and infrastructure improvements to improve the quality of life for rural residents. As part of this funding, DDW is required to evaluate the occurrence of U.S. Army Corps of Engineers (USACE) jurisdictional wetlands and waters of the U.S, and if necessary, consult with USACE directly to ensure the agency is not undertaking, funding, permitting or authorizing actions that are likely to result in the discharge of dredged or fill material into U.S. waters including wetlands.

SCSA#3 is in the process of performing an environmental review pursuant to the National Environmental Policy Act (NEPA) for the DDW in order to assess the potential environmental impacts of the Proposed Project in Summit County, Utah. As part of this environmental review process, SCSA#3 has completed a review and field surveys to identify the presence USACE-jurisdictional wetlands and waters of the U.S. and to identify and quantify what, if any, impacts the Proposed Project would have on USACE-jurisdictional features.

Following a data review and aquatic resources surveys completed in October and November 2025, it is Cardinal EC's conclusion that the Proposed Project would result in no impacts to USACE-jurisdictional wetlands or waters of the U.S. due to the absence of wetlands and waters of the U.S. within the Proposed Project. It is Cardinal EC's request to seek USACE's concurrence of our conclusion that the Proposed Project would result in no temporary or permanent impacts to USACE-jurisdictional features.

Proposed Project

The Project is located approximately five miles north of Park City, Utah, in Township 1 South, Range 4 East in portions of section 9, 10, 15, and 16 (Attachment 1). The Survey Area includes the entire Project which includes portions of the existing SCSA#3 residential water infrastructure along existing roads and undeveloped private land. Its location is shown on Park City East, UT, and Park City West, UT U.S. Geological Survey (USGS) 7.5' quadrangle. The Survey Area includes approximately 17 acres including portions of the existing residential water infrastructure easements as well as areas where the proposed improvements would be located.

SCSA#3 has expressed interest in evaluating undeveloped areas adjacent to their existing infrastructure for expansion of their water supply system. While the final design of the Proposed Project and permitting are not complete, the expansion would entail construction within existing SCSA#3 easements and undeveloped lands. The Project could include, but is not limited to removal of vegetation, regrading, cut and fill, paving, and installation of facilities including:

- A new underground 750,000-gallon concrete storage tank;
- New storage tank access roadway;
- Approximately 8,800 feet of 6” to 10” buried waterlines;

- A new culinary water well and well house;
- System wide-fire flow improvements; and
- Well zone isolation and water chemistry study.

The Proposed Project will entail locating the drinking water system infrastructure upgrades adjacent to the existing SCSA#3 culinary water system infrastructure, on undeveloped land, and along existing roadways to maximize use of previously disturbed areas and easements within the adjacent community. Disturbance associated with replacement of existing or installation of new buried water line and temporary extra workspace would result in approximately 4.45 acres of temporary disturbance much of which is located within existing paved roadways and the existing SCSA#3 waterline easements. As proposed, Construction of the new below-ground water storage tank, well house, facilities parking, and service connections would result in disturbance to previously undisturbed areas supporting upland sagebrush pant communities. Approximately 0.21 acres would be permanently converted to above-ground facilities (access road, staging/parking areas, well house, and support infrastructure) and would remain disturbed for the life of the system. After construction of the Project is complete, the disturbed areas used for temporary extra workspace would be restored to the existing contour and use or reclaimed and reseeded to the extent practical.

During construction slow-moving machinery, vehicles, and workers would be restricted to the Proposed Project, shoulders of the roads, easements where existing SCSA#3 facilities are located, and new easements obtained for this Proposed Project. Work in the Proposed Project would be minimized to the extent practical to existing SCSA#3 easements, along roadways, and temporary extra workspace to facilitate construction and staging. Following installation of the facilities, all disturbed areas would be restored to previous use or reclaimed and construction equipment and workers would leave the area as no other ground disturbing activities would be required. Following construction, the new SCSA#3 facilities would be integrated into the existing residential water supply system. Ground disturbance following construction is anticipated if the facilities are damaged and will be limited to the areas immediately around the damaged facilities.

Aquatic Resources

Wetlands and waters of the U.S. were identified using methods described in the 1987 USACE Wetland Delineation Manual (USACE 1987) and the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coasts (Version 2.0) (USACE 2010). A preliminary assessment of jurisdictional status of all delineated wetlands and Waters of the U.S. was conducted using USACE's Jurisdictional Determination Form Instructional Guidebook, Version 2.0. Waters of the U.S. were identified based on the current regulatory definition, and on the presence/absence of a defined channel bottom within intermittent stream systems as described in the USACE 2014 A Field Guide to the Identification of the Ordinary High-Water Mark in the Western Mountains, Valleys, and Coasts of the United States (Mersel and Lichvar 2014).

The desktop analysis identified potential wetland features and waterbodies, all of which appear to be unnamed drainage features and riverine wetland features located in the Lower Weber (16030003) Hydrologic Unit Code (HUC). These are identified as un-named bluelines and natural drainage features on topographic maps, documented as NWI wetlands, and drainage/riparian features on aerial imagery. Results from the NWI review identified each of these features as drainage features categorized as R4SBC. Review of the list of soils for the Proposed Project identified Ant Flat loam, 2 to 8 percent; Ant Flat loam, 8 to 15 percent slopes; Ayoub cobbly loam, 2 to 15 percent slopes; Ayoub-Dunford-Melling complex, 15 to 30 percent slopes, Melling-Ayoub-Rock outcrop complex, 10 to 30 percent slopes; and Wanship loam, 0 to 3 percent slopes. With exception to Wanship loam, listed as predominantly nonhydric, all of these soils are listed as nonhydric (NRCS 2026a, NRCS 2026b). Results of the desktop analysis indicated a likelihood of encountering regulated aquatic resources in the Proposed Project. As a result, the Project was subject to a field survey and investigated to determine location and the jurisdictional status of aquatic resources within the Project (Attachment 1).

Results of the field survey to identify the presence of USACE jurisdictional wetlands or waters of the U.S. within the Proposed Project are presented below. Cardinal EC evaluated the entire Survey Area and concluded:

- A single R4SBC NWI feature and unnamed blueline were identified as crossing the Greenfield Water Line during the data review. The NWI line appears to initiate at a man-made impoundment located northwest of the Proposed Project. While this feature may have historically ran diagonally across the landscape, it appears to have been channeled and confined to properties west of the Proposed Project. Aerial imagery suggests the presence of two drainage features: one to the west of the Proposed Project which appears as a direct result of overflow water from a man-made impoundment (identical to the NWI feature) which drains along the western side of Greenfield Road as a roadside or irrigation ditch, and a second feature to the east which initiates as a stormwater or roadside ditch in the residential development to the north running along the east side of Greenfield Road. Both features appear to terminate at or before Valley Drive. Soils in this area were identified as Wanship loam 0 to 3 percent and listed as predominantly non-hydric (NRCS 2026b).

  Results of the field survey identified that the current-day characteristics of both the western and eastern features appear to be localized, possibly historic depressional features, are ephemeral with no indication of relatively permanent water, and lack a continuous bed and bank. Both are confined to small depressions outside the Proposed Project construction footprint and would be characterized as roadside or irrigation ditches for the pastures to the west and east. Both features are confirmed to terminate at or before Valley Drive. Furthermore, the Proposed Project is located on an elevated road easement consisting of portions of dirt road and paved road. Cardinal EC concluded that both the western and eastern features would be considered non-jurisdictional isolated features due to their termination at Valley Drive and lack of relatively permanent hydrologic connection to other USACE jurisdictional features. No impacts to USACE-jurisdictional features would occur at this site as part of the Proposed Project;

- Review of the NWI and topographic blueline data suggests that USACE- jurisdictional wetland features (R4SBC) may occur within the Greenfield Well Site. Aerial imagery suggests the potential occurrence of USACE-jurisdictional features. Soils in this area were identified as Ant Flat Loam 2 to 8 percent and listed as non-hydric (NRCS 2026b). These wetlands were not delineated as no wetlands or waters of the U.S. would be impacted at this site. As proposed, activities at the Greenfield Well Site are limited to work within the existing well-house and existing parking areas. No impacts to USACE-jurisdictional features would occur at this site as part of the Proposed Project;

- No wetlands or waters of the U.S. occur within the Silver Bullet Tank Site. This site is located entirely in an upland setting. A single R4SBC NWI feature was identified near the southeastern corner of this site’s Survey Area, outside the footprint for construction, and is addressed in the Whileaway Water Line summary below. No impacts to USACE-jurisdictional features would occur at this site as part of the Proposed Project;

  A single R4SBC NWI feature and unnamed blueline were identified as crossing the Whileaway Water Line during the data review. Aerial imagery does not suggest the presence of any water-conveying or wetland-like feature. Soils in this area were identified as Ant Flat Loam 8 to 15 percent and listed as predominantly non-hydric (NRCS 2026b). Cardinal EC concluded during field surveys that this is a topographic depression or vegetated upland swale. No OHWM indicators or USACE-jurisdictional feature is present at this location. Furthermore, the Proposed Project would be installed within the existing roadway and would not result in new ground disturbance within or near this feature. No impacts to USACE-jurisdictional features would occur at this site as part of the Proposed Project;;

  No NWI data, wetlands or waters of the U.S. occur at the Beehive Water Line Site. The Proposed Project would be installed within the existing roadway and road easement which are located in an upland setting. No impacts to USACE-jurisdictional features would occur at this site as part of the Proposed Project;;

  A single R4SBC NWI feature and unnamed blueline were identified as crossing the Crescent Water Line & Tank Overflow/Drain Site. Review of aerial imagery suggests the presence of a localized drainage depression or ephemeral drainage feature. Soils in this area were identified as Ant Flat Loam 2 to 8 percent and listed as non-hydric (NRCS 2026b).During the field survey, Cardinal EC concluded that a non-jurisdictional ephemeral drainage or upland swale occurs at this location. This drainage does not support hydrophytic vegetation, a defined bed, bank, surface water flow, or other OHWM indicators. No impacts to USACE-jurisdictional features would occur at this site as part of the Proposed Project, and;

No wetlands or waters of the U.S. occur at the New Storage Tank or New Access Road Site as these areas are all located entirely in an upland setting. No impacts to USACE-jurisdictional features would occur at this site as part of the Proposed Project;

As part of this permitting process SCSA#3 and DDW is also conducting a historic resource review in compliance with Section 106 of the National Historic Preservation Act (SHPO Concurrence), completing consultation with the U.S. Fish and Wildlife Service in compliance with Section 7 of the Endangered Species Act, and coordinating with the agency representatives for concurrence of "no effect" / "no historic properties affected" determinations for both of these resources.

I would greatly appreciate notification if USACE does or does not have an interest in the Proposed Project, as well as any comments or concerns you may have within 30 days. Should you have any additional interest in the Proposed Project, I will provide you with additional information pursuant to NEPA as it becomes available. Please provide your notification of interest and any comments or concerns by email at aaron.james@cardinal-ec.com, or I can also be reached by telephone at 801-719-9132. If you prefer, you may also contact the DDW project manager Allyson Spevak by email at allysonspevak@utah.gov or by telephone at 801-536-4200.

Sincerely,

Aaron James

Aaron M. James
Principal
Cardinal EC

Attachment 1 – Project Overview Topographic, Aerial Map, and NWI Maps
Attachment 2 – Project Design Figures
Attachment 3 – Project Photographs
Attachment 4 – Soil Report

References:

Mersel, M. K., and Lichvar, R. W., 2014. A Guide to Ordinary High Water Mark Delineation for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region. Hanover, NH.

Natural Resources Conservation Service (NRCS). 2026a. Web Soil Survey of the Wetland Survey Area. Available ahttps://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspxt. Accessed March 2026.

NRCS. 2026b. National List of Hydric Soils, Query by State for Utah. Available at https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/. Accessed March 2026.

U.S. Army Corps of Engineers, (USACE). 1987. U.S. Army Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. NTIS No. AD A176 912. http://el.erdc.usace.army.mil/wetlands/pdfs/wlman87.pdf. U.S. Army Corps of Engineers, Environmental Laboratory, Waterways Experiment Station, Vicksburg, Mississippi. January.

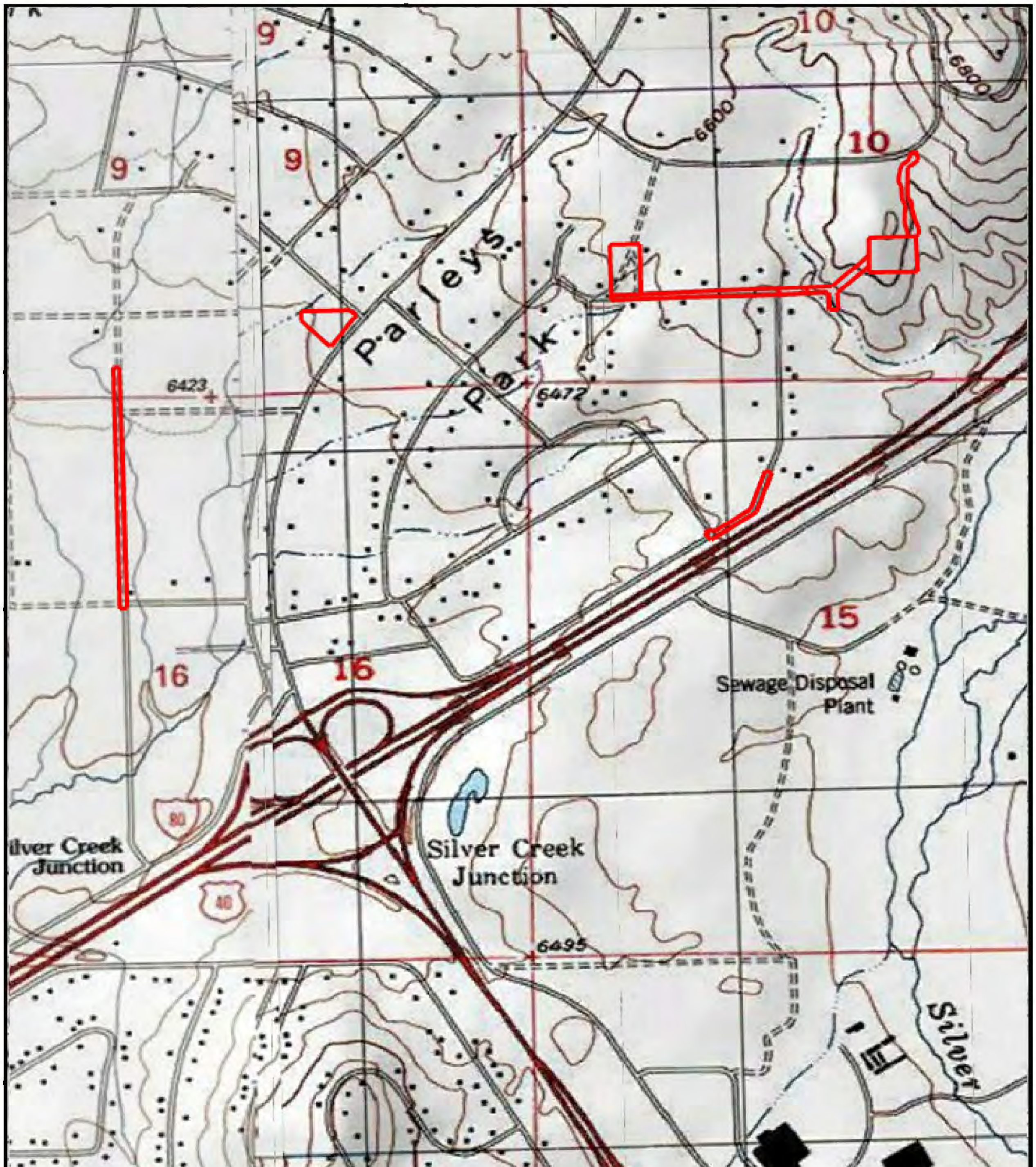
USACE. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Mountains, Valleys, and Coasts Region (Version 2.0). U.S. Army Corps of Engineers Engineer Research and Development Center. Vicksburg, MS.

USACE and USEPA. 2008. U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook. U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency. May 30.

United States Department of the Interior, United States Fish and Wildlife Service (USFWS). 2026. National Wetlands Inventory (NWI) Mapper. Available online at http://www.fws.gov/wetlands/data/mapper.

SCSA#3 Culinary Water Improvement Project

Attachment 1 – Project Overview Topographic, Aerial Map, and NWI Maps



Legend

Project \
Survey Area

SCSA#3 Culinary Water Improvement Project

CARDINAL EC

0 1.0 mi

USGS Topographic 7.5" Map - Park City East / Park City West, UT

Summit County, UT
T1S R4E

N

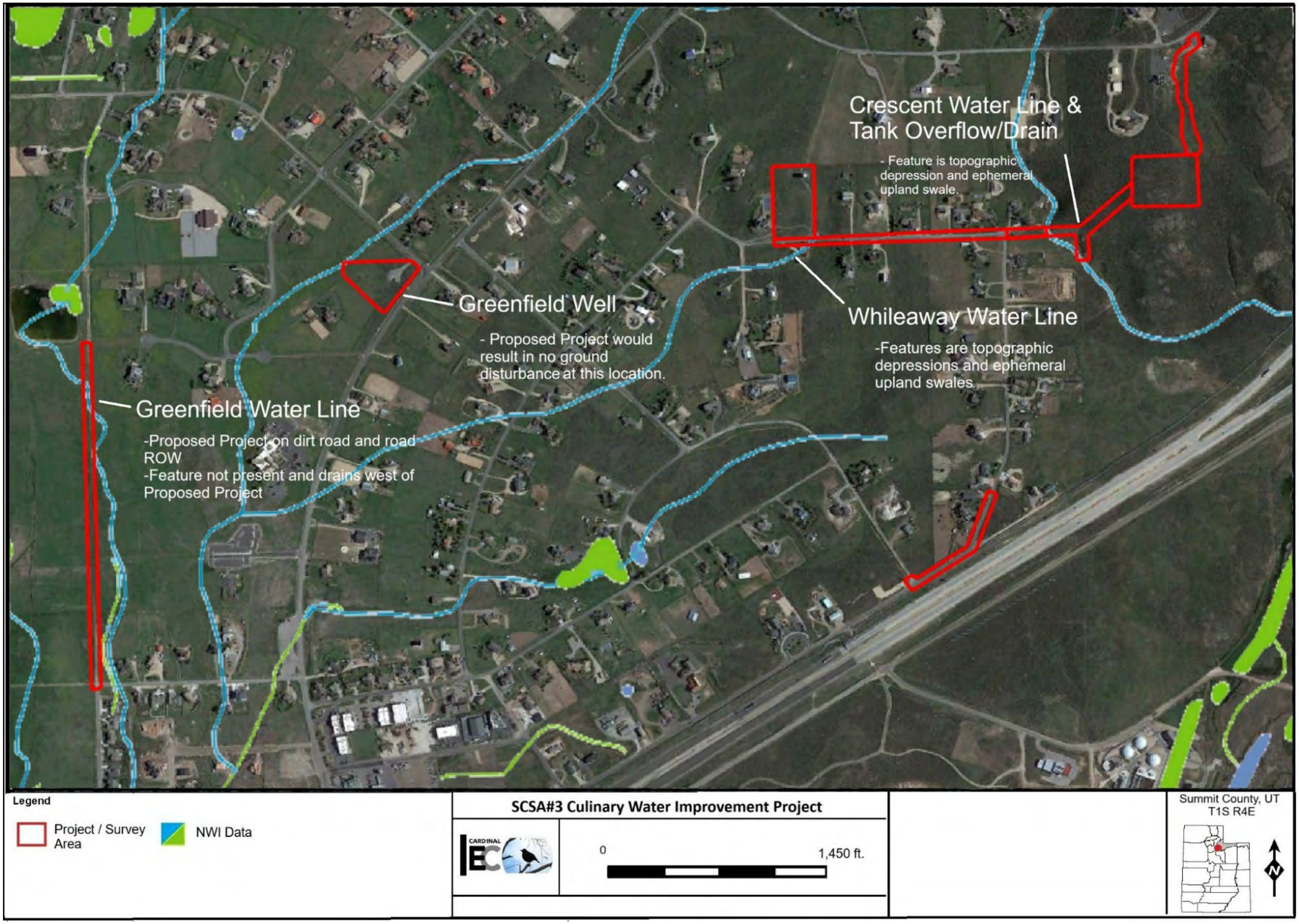
Legend

Survey Area

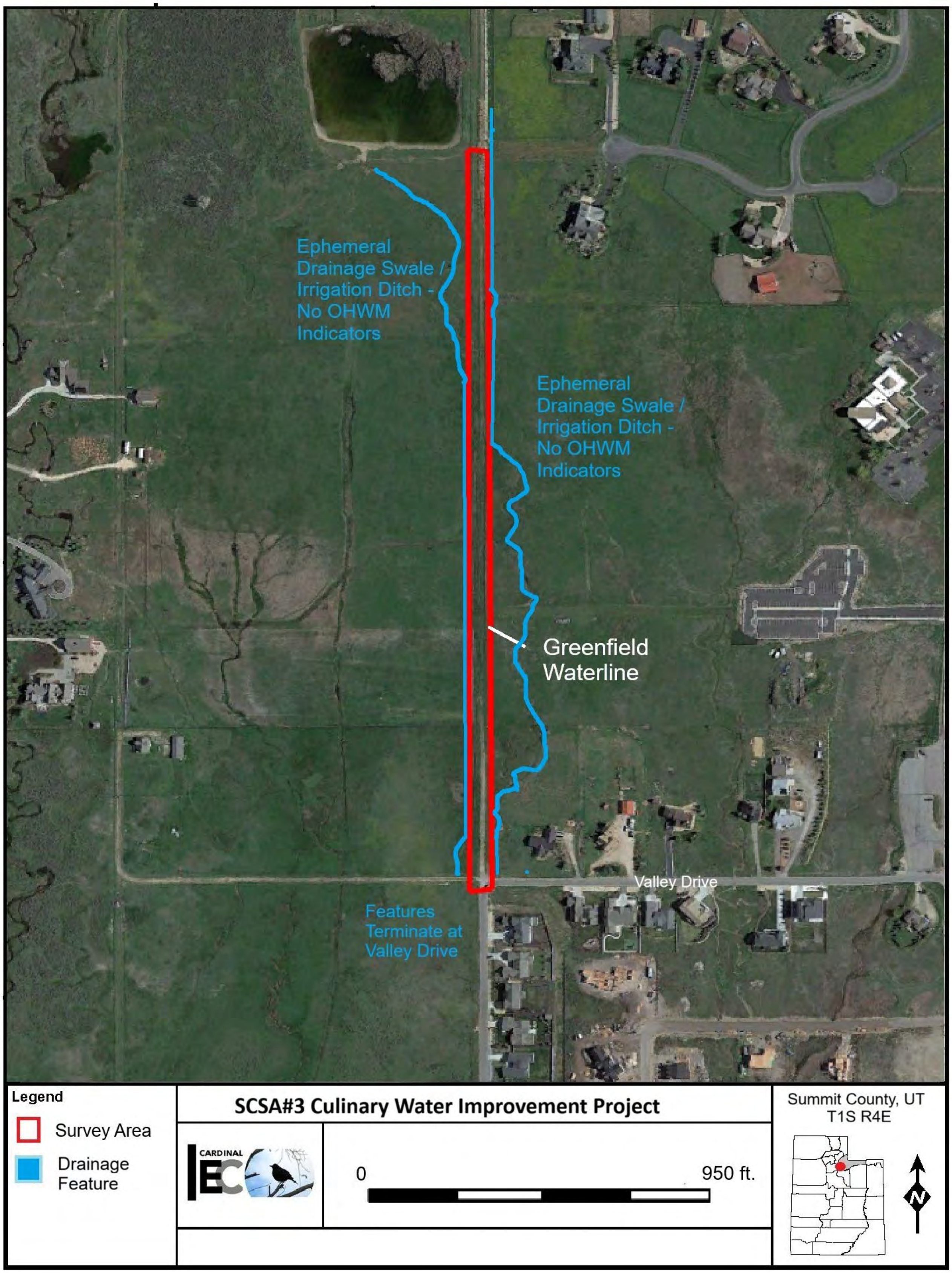
SCSA#3 Culinary Water Improvement Project

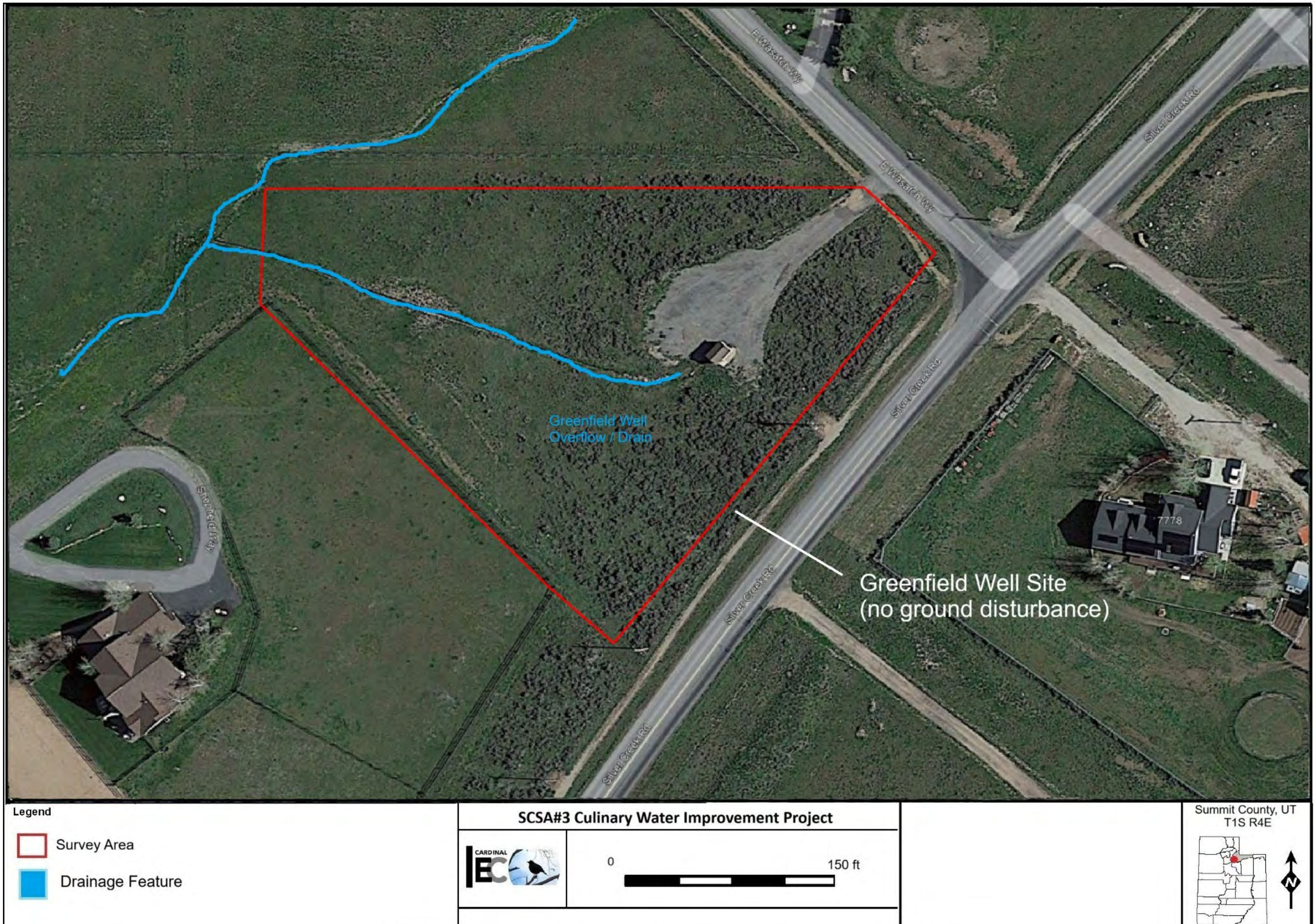
0 — 1,500 ft.

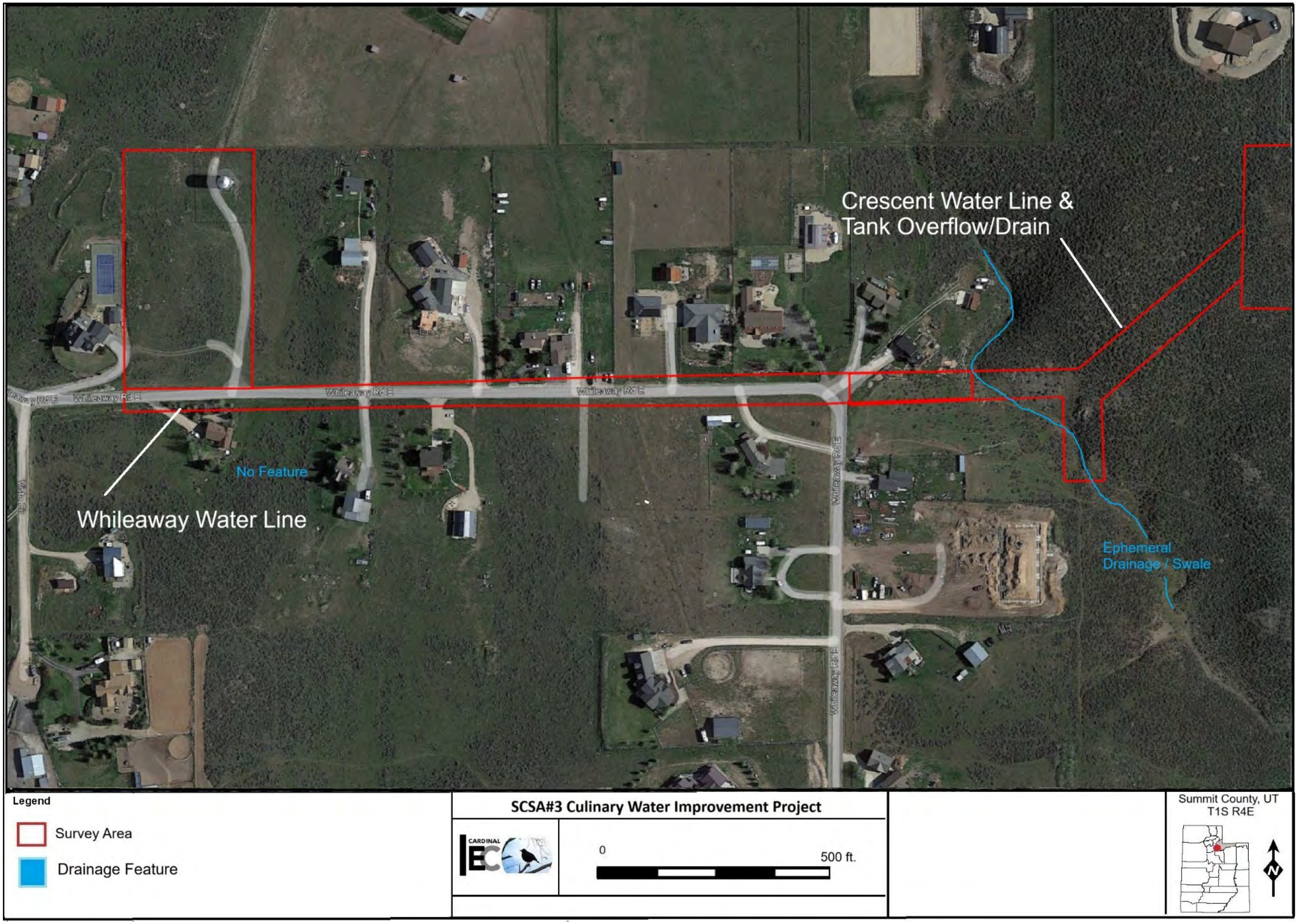
Summit County, UT
T1S R4E



SCSA#3 Culinary Water Improvement Project Aquatic Resources Review - Attachment


Ephemeral
Drainage Swale /
Irrigation Ditch -
No OHWM
Indicators
Ephemeral
Drainage Swale /
Irrigation Ditch -
No OHWM
Indicators
Greenfield
Waterline
Valley Drive
Features
Terminate at
Valley Drive
Legend
Survey Area
Drainage
Feature
SCSA#3 Culinary Water Improvement Project
CARDINAL
EC
0
950 ft.
Summit County, UT
T1S R4E
N


Greenfield Well Overflow / Drain
Greenfield Well Site
(no ground disturbance)
E Wasatch Wy
Silver Creek Rd
Legend
Survey Area
Drainage Feature
SCSA#3 Culinary Water Improvement Project
0
150 ft
Summit County, UT
T1S R4E
N



SCSA#3 Culinary Water Improvement Project Aquatic Resources Review - Attachment

SCSA#3 Culinary Water Improvement Project

Attachment 2 – Preliminary Design Concept Plan

2/20/2026

SHEET NOTES

SHEET LEGEND

PLAN REVISIONS

A. ADDED SILVER BULLET SHEET FOR REFERENCE

RIMROCK ENGINEERING & DEVELOPMENT

CAD TECH:	CRS	CALL BLUE STAKES PRIOR TO DIGGING
DESIGNER:	CRS	
Q&A:	JNS	

PROJECT NAME

SCSA#3 CULINARY WATER 2026

SHEET NAME

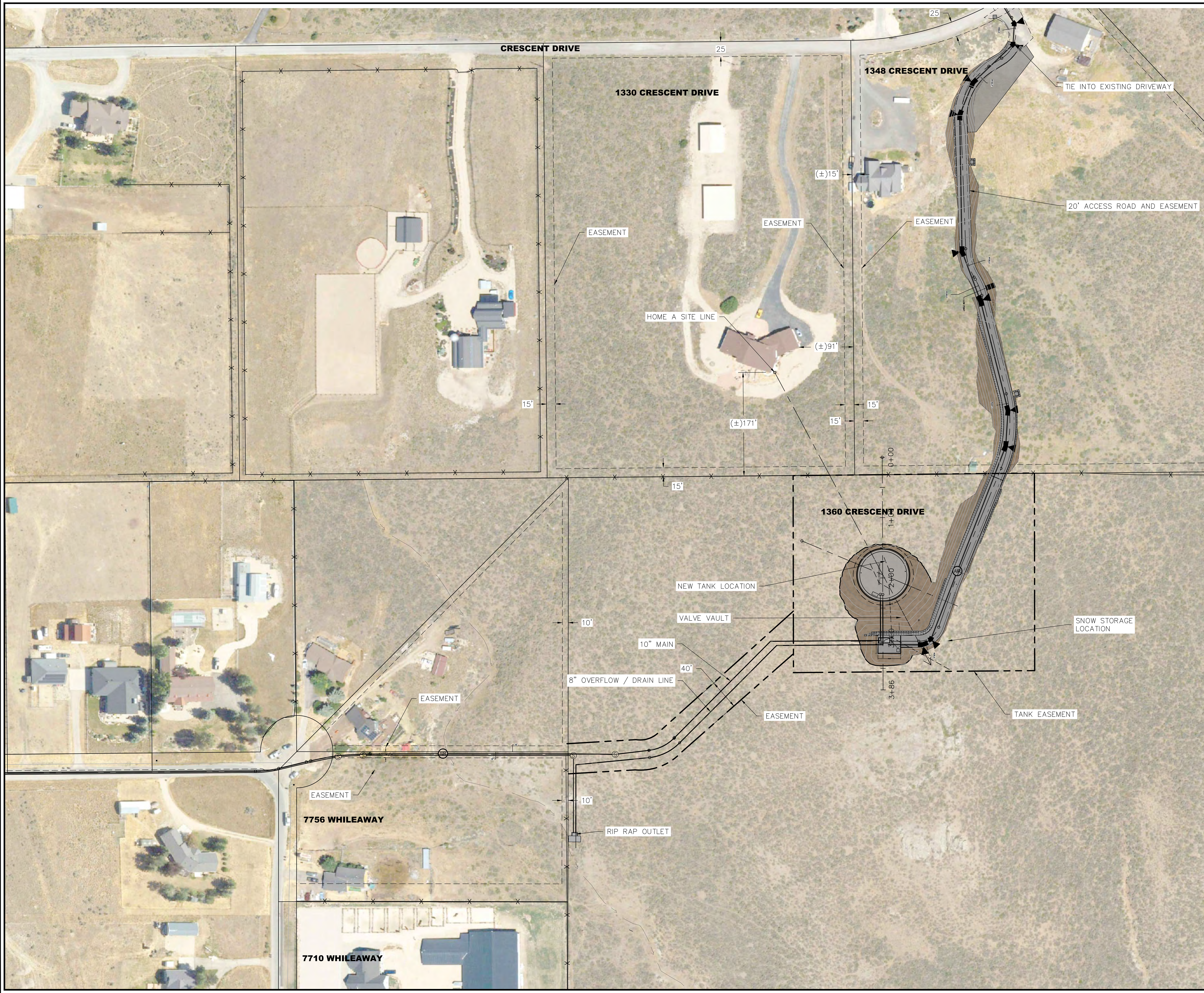
OVERALL INDEX SHEET

PLAN SUBMITTAL: DDW REVIEW

2/20/26

SHEET NUMBER

INDEX-1.1



Temporary Seeding Mix for Erosion Control	
Species	PLS*/ACRE
Western Wheatgrass	4
Bluebunch Wheatgrass	6
Intermediate Wheatgrass	4
Smooth Brome	3
Cicer Milkvetch	1
Sainfoin	2
Total	**20**
Permanent Seeding Mix for Erosion Control	
Species	PLS*/ACRE
Western Wheatgrass	5
Bluebunch Wheatgrass	7
Intermediate Wheatgrass	5
Smooth Brome	4
Cicer Milkvetch	2
Sainfoin	2
Arrowleaf Balsamroot	1
Mountain Sagebrush	2
Antelope Bitterbrush	2
Total	**30**
*pure live seed	

N

W E

S

SCALE: 1" =80'

0 80 160 Feet

SHEET NOTES

1. DISTURBED AREAS TO BE TEMPORARILY SEEDED IF CONSTRUCTION DOES NOT CONTINUE IN 30 DAYS. APPROVED TEMPORARY SEEDING MIX CAN BE FOUND ON DETAIL SHEET EROS-3.
2. INSTALL TEMPORARY EROSION CONTROL MATTING ON ALL DISTURBED SLOPES OF 3H:1V PRIOR TO RE-VEGETATION TO CONTROL EROSION.
3. PERMANENT RE-VEGETATION MUST TAKE PLACE DURING THE FOLLOWING WINDOW: FROM 4,000'-6000', SEPT. 15 TO DEC.1; FROM 6,000' AND ABOVE, SEPT. 15 TO NOV. 15 PERMANENT RE-VEGETATION WILL CONSIST OF APPROVED SEEDING MIX FOUND ON DETAIL SHEET EROS-3.
4. SEEDBED SHOULD BE PREPARED PRIOR TO SEEDING. INVASIVE AND NON-NATIVE COMPETITION SPECIES MUST BE ELIMINATED FROM SEED BED THROUGH APPROVED US OF HERBICIDES TO ENCOURAGE PROPER RE-SEEDING SUCCESS.
5. SEEDBED SHOULD BE FIRM AND MOIST, SEEDS SHOULD BE SOWN TO A DEPTH BETWEEN 1/4" AND 1/2" DEEP. SEEDING MUST TAKE PLACE DURING WINDOW IDENTIFIED ABOVE.

SHEET LEGEND

PLAN REVISIONS

A.

RIMROCK ENGINEERING & DEVELOPMENT

CAD TECH:	CRS
DESIGNER:	CRS
Q&A:	JNS

CALL BLUE STAKES PRIOR TO DIGGING

PROJECT NAME

SCSA#3 CULINARY WATER 2026

SHEET NAME

CRESCENT SITE PLAN

PLAN SUBMITTAL: DDW REVIEW

2/21/26

SHEET NUMBER

CS1.0

SHEET NOTES

1.

SHEET LEGEND

- PWR — EXIST POWER
- G — EXIST GAS
- EXIST WATER
- IRR — EXIST IRRIGATION
- EXIST SEWER
- TEL — EXIST TELEPHONE
- EXIST STORM DRAIN
- EXIST FIBER OPTIC
- EXIST FENCE
- EXIST EDGE OF ROAD
- EXIST MAJOR CONTOUR
- EXIST MINOR CONTOUR
- EXIST DITCH FLOW LINE
- NEW EDGE OF ROAD
- NEW MAJOR CONTOUR
- NEW MINOR CONTOUR
- NEW DITCH FLOW LINE
- NEW STRIPING
- NEW SEPARATION STRIP
- PROPERTY BOUNDARY
- UTILITY EASEMENT

PLAN REVISIONS

A.

RE&D
RIMROCK ENGINEERING & DEVELOPMENT

CAD TECH:	CRS
DESIGNER:	CRS
Q&A:	JNS

CALL BLUE STAKES PRIOR TO DIGGING

PROJECT NAME

SILVER BULLET WELL HOUSE

SHEET NAME

SITE PLAN

PLAN SUBMITTAL: CONCEPTUAL

SCALE:	11"x17"	24"x36"
HORIZ.	1"=10'	1"=20'

3/23/26

SHEET NUMBER

SITE

SCSA#3 Culinary Water Improvement Project

Attachment 3 – Project Photographs

Photographs of SCSA#3 Culinary Water Proposed Project. October and November 2025 Field Survey

Greenfield Water Line Site. Proposed Project water line would be installed in elevated dirt road easement and reclaimed entirely. View North.

Greenfield Water Line Site. Proposed Project waterline would be installed in elevated dirt road easement and reclaimed. View South.

Greenfield Water Line Site. Drainage feature east of Proposed Project waterline. NO OHWM indicators. View North.

Greenfield Water Line Site. Drainage feature east of Proposed Project water line. No OHWM indicators. View North.

Photographs of SCSA#3 Culinary Water Proposed Project. October and November 2025 Field Survey

Greenfield Water Line Site. Drainage feature west of Proposed Project waterline. Culvert shown under road. NO OHWM indicators. View South.

Greenfield Water Line Site. Drainage feature west of Proposed Project waterline. No OHWM indicators. View North.

Greenfield Water Line Site. Drainage feature west of Proposed Project waterline. No OHWM indicators. View South.

Greenfield Water Line Site. Drainage feature west of Proposed Project waterline. No OHWM indicators. View North.

Photographs of SCSA#3 Culinary Water Proposed Project. October and November 2025 Field Survey

Greenfield Water Line Site. Drainage feature west of Proposed Project waterline. Culvert shown under road. NO OHWM indicators. View South.

Greenfield Water Line Site. Drainage feature west of Proposed Project waterline. No OHWM indicators. View North.

Greenfield Water Line Site. View North.

Greenfield Water Line Site. View South.

Photographs of SCSA#3 Culinary Water Proposed Project. October and November 2025 Field Survey

Greenfield Well Site. Showing well house overflow/drain feature. No ground disturbance would occur at this location. View Southwest.

Greenfield Well Site. Showing NWI feature on northwest corner of Survey Area. No ground disturbance would occur at this location. View South.

Greenfield Well Site. Sagebrush vegetation on parcel. Proposed Project would not result in disturbance to this site. Existing well house pictured right. View West.

Greenfield Well Site. Proposed Project would not result in disturbance to this site. Existing well house and parking pictured.

Photographs of SCSA#3 Culinary Water Proposed Project. October and November 2025 Field Survey

Silver Bullet Tank Site. Disturbed sagebrush and reclamation grasses present. Proposed Project includes new well and well house at this approximate location. View North.

Silver Bullet Tank Site. Disturbed sagebrush and reclamation grasses present. Proposed Project includes new well and well house at this approximate location. View South.

Silver Bullet Tank Site. Disturbed sagebrush and reclamation grasses present. NWI feature pictured on left side of photo in topographic depression. No feature present.

Silver Bullet Tank Site. Disturbed sagebrush and reclamation grasses present. NWI feature pictured center of photo in topographic depression. No feature present.

Photographs of SCSA#3 Culinary Water Proposed Project. October and November 2025 Field Survey

Whileaway Water Line pictured along paved road in center of photo. Location of NWI feature pictured in topographic drainage pictured left (Same as Silver Bullet Tank). No feature. View South.

Whileaway Water Line. Location of NWI feature pictured. (Same as Silver Bullet Tank). No feature. View South.

Whileaway Water Line Site. Proposed Project water line would be installed entirely in road easement.

Whileaway Water Line Site. Proposed Project water line would be installed entirely in road easement.

Photographs of SCSA#3 Culinary Water Proposed Project. October and November 2025 Field Survey

Beehive Waterline Site. Proposed Project water line would be installed in road easement.

Beehive Waterline Site. Proposed Project water line would be installed in road easement.

Crescent Water Line and Overflow/Drain Site. Proposed Project water lines would be installed in previously undisturbed easement, buried, reclaimed, and revegetated. Photo shows NWI feature a topographic depression/ ephemeral upland swale. No OHWM. View North.

Crescent Water Line and Overflow/Drain Site. Proposed Project water lines would be installed in previously undisturbed easement, buried, reclaimed, and revegetated. Photo shows NWI feature a topographic depression/ ephemeral upland swale. No OHWM. View South.

Photographs of SCSA#3 Culinary Water Proposed Project. October and November 2025 Field Survey

Crescent Tank Site. Proposed Project storage tank would be installed in previously undisturbed easement, much of which would be reclaimed, and revegetated. Parking area would permanently remove sagebrush vegetation community. View South.

Crescent Tank Site. Proposed Project storage tank would be installed in previously undisturbed easement, much of which would be reclaimed, and revegetated. Parking area would permanently remove sagebrush vegetation community. View North.

Crescent Storage Tank & Access Road Site. Proposed Project tank access road would be installed in previously undisturbed easement which would permanently remove disturbed sagebrush vegetation community. View South.

Crescent Storage Tank & Access Road Site. Proposed Project tank access road would be installed in previously undisturbed easement which would permanently remove sagebrush vegetation community. View North.

SCSA#3 Culinary Water Improvement Project

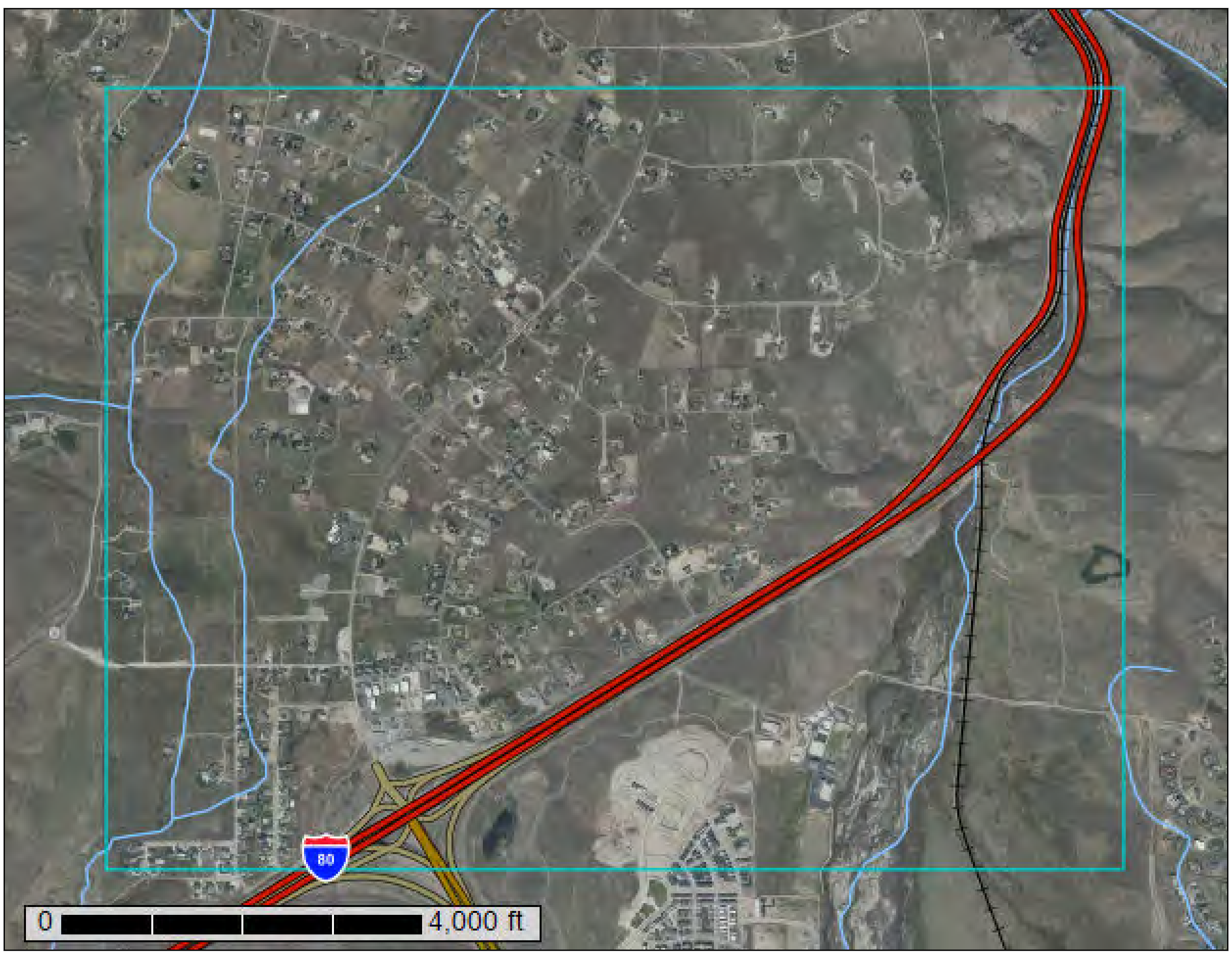
Attachment 4 – Soil Report

United States Department of Agriculture

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Summit Area, Utah, Parts of Summit, Salt Lake and Wasatch Counties



November 7, 2025

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

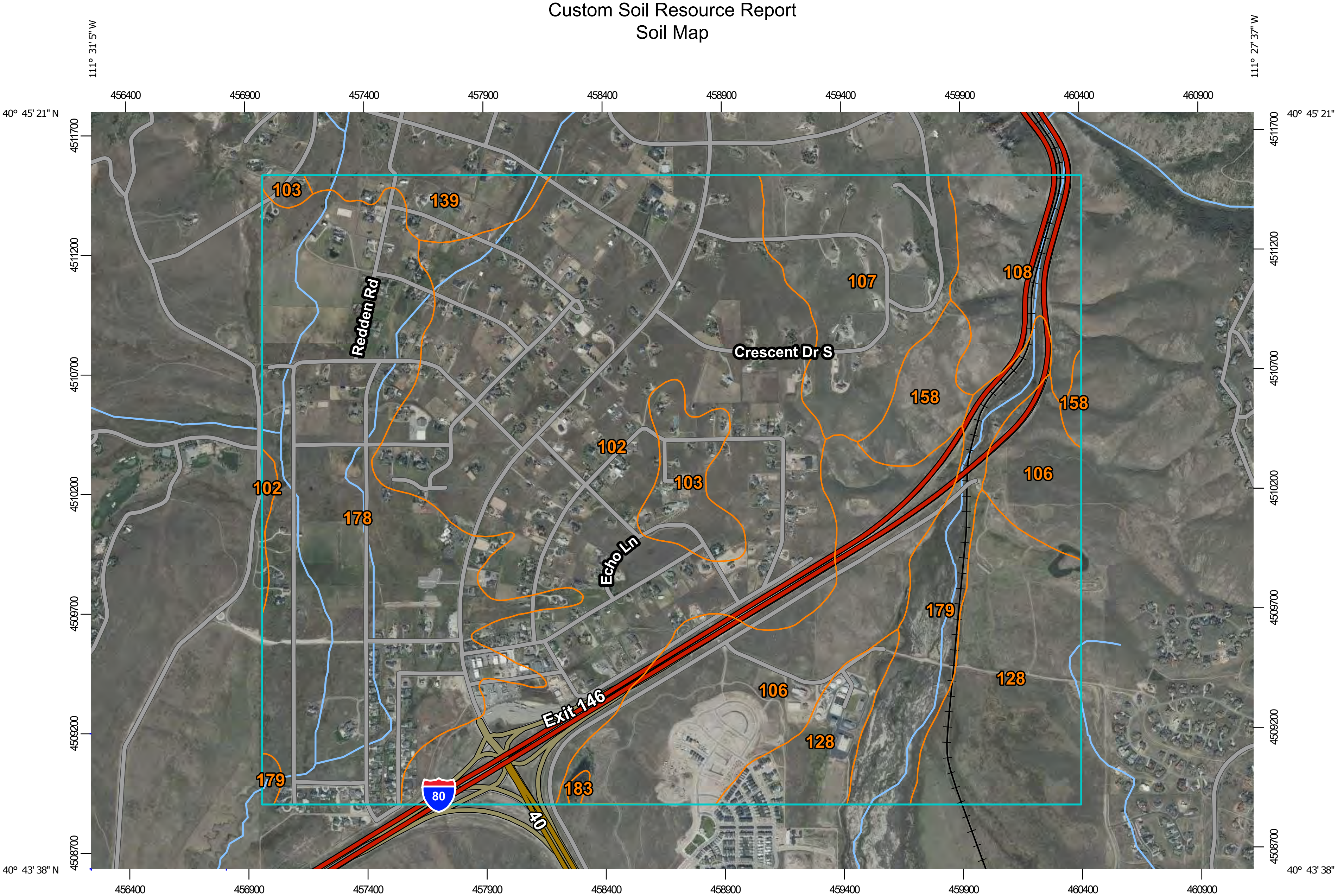
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Soil Map



Map Scale: 1:22,300 if printed on A landscape (11" x 8.5") sheet.

Meters: 0, 300, 600, 1200, 1800

Feet: 0, 1000, 2000, 4000, 6000

N

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Summit Area, Utah, Parts of Summit, Salt Lake and Wasatch Counties
Survey Area Data: Version 17, Aug 27, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 17, 2023—Sep 25, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
102	Ant Flat loam, 2 to 8 percent slopes	776.8	34.6%
103	Ant Flat loam, 8 to 15 percent slopes	54.2	2.4%
106	Ayoub cobbly loam, 2 to 15 percent slopes	276.7	12.3%
107	Ayoub-Dunford-Melling complex, 15 to 30 percent slopes	156.6	7.0%
108	Ayoub-Dunford-Melling complex, 30 to 60 percent slopes	104.0	4.6%
128	Fewkes gravelly loam, 2 to 8 percent slopes	212.4	9.5%
139	Harter gravelly loam, 2 to 15 percent slopes	41.6	1.9%
158	Melling-Ayoub-Rock outcrop complex, 10 to 30 percent slopes	47.2	2.1%
178	Wanship loam, 0 to 3 percent slopes	463.7	20.7%
179	Wanship-Kovich loams, 0 to 3 percent slopes	109.6	4.9%
183	Water	2.3	0.1%
Totals for Area of Interest		**2,245.1**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Summit Area, Utah, Parts of Summit, Salt Lake and Wasatch Counties

102—Ant Flat loam, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: k1w5
Elevation: 6,300 to 8,000 feet
Mean annual precipitation: 16 to 22 inches
Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 60 to 90 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Ant flat and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ant Flat

Setting

Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Slope alluvium derived from conglomerate, sandstone, and shale

Typical profile

A - 0 to 13 inches: loam
Bt1 - 13 to 19 inches: clay loam
Bt2 - 19 to 30 inches: clay
Bk1 - 30 to 45 inches: clay loam
Bk2 - 45 to 60 inches: clay loam

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.0 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Minor Components

Dastrup

Percent of map unit: 5 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA308UT - Upland Loam (basin big sagebrush)
Other vegetative classification: Upland Loam (Mountain Big Sagebrush) (047XA308UT_2)
Hydric soil rating: No

Manila

Percent of map unit: 5 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Fewkes

Percent of map unit: 3 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Henefer

Percent of map unit: 2 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R047XA432UT - Mountain Loam (oak)
Hydric soil rating: No

103—Ant Flat loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: k1wj
Elevation: 5,700 to 8,100 feet
Mean annual precipitation: 16 to 22 inches
Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 60 to 90 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Ant flat and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ant Flat

Setting

Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Slope alluvium derived from sandstone, shale, and conglomerate

Typical profile

A - 0 to 13 inches: loam
Bt1 - 13 to 19 inches: clay loam
Bt2 - 19 to 30 inches: clay
Bk1 - 30 to 45 inches: clay loam
Bk2 - 45 to 60 inches: clay loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.0 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Minor Components

Manila

Percent of map unit: 5 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Dastrup

Percent of map unit: 5 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA308UT - Upland Loam (basin big sagebrush)
Other vegetative classification: Upland Loam (Mountain Big Sagebrush) (047XA308UT_2)
Hydric soil rating: No

Fewkes

Percent of map unit: 3 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Henefer

Percent of map unit: 2 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R047XA432UT - Mountain Loam (oak)
Hydric soil rating: No

106—Ayoub cobbly loam, 2 to 15 percent slopes

Map Unit Setting

National map unit symbol: k1rt
Elevation: 5,800 to 8,000 feet
Mean annual precipitation: 16 to 22 inches
Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 60 to 90 days
Farmland classification: Not prime farmland

Map Unit Composition

Ayoub and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ayoub

Setting

Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Slope alluvium derived from andesite over residuum weathered from andesite

Typical profile

A - 0 to 6 inches: cobbly loam
Bt1 - 6 to 12 inches: gravelly clay loam
Bt2 - 12 to 18 inches: gravelly clay loam
Bt3 - 18 to 23 inches: gravelly clay loam
C - 23 to 35 inches: very cobbly loam
R - 35 to 45 inches: bedrock

Properties and qualities

Slope: 2 to 15 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Ecological site: R047XA406UT - Mountain Gravelly Loam (mountain big sagebrush)
Hydric soil rating: No

Minor Components

Ant flat

Percent of map unit: 5 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Dunford

Percent of map unit: 5 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA410UT - Mountain Gravelly Loam (oak)
Hydric soil rating: No

Melling

Percent of map unit: 5 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA446UT - Mountain Shallow Loam (mountain big sagebrush)
Hydric soil rating: No

107—Ayoub-Dunford-Melling complex, 15 to 30 percent slopes

Map Unit Setting

National map unit symbol: k1rv
Elevation: 5,800 to 7,800 feet
Mean annual precipitation: 16 to 22 inches

Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 60 to 90 days
Farmland classification: Not prime farmland

Map Unit Composition

Ayoub and similar soils: 45 percent
Dunford and similar soils: 20 percent
Melling and similar soils: 20 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ayoub

Setting

Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium and slope alluvium derived from andesite

Typical profile

A - 0 to 6 inches: cobbly loam
Bt1 - 6 to 12 inches: gravelly clay loam
Bt2 - 12 to 18 inches: gravelly clay loam
Bt3 - 18 to 23 inches: gravelly clay loam
C - 23 to 35 inches: very cobbly loam
R - 35 to 45 inches: bedrock

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: R047XA406UT - Mountain Gravelly Loam (mountain big sagebrush)
Hydric soil rating: No

Description of Dunford

Setting

Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium and slope alluvium derived from andesite

Typical profile

A - 0 to 10 inches: cobbly loam

Bt1 - 10 to 21 inches: gravelly clay loam
Bt2 - 21 to 36 inches: gravelly clay loam
R - 36 to 46 inches: bedrock

Properties and qualities
Slope: 15 to 30 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.2 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: R047XA410UT - Mountain Gravelly Loam (oak)
Hydric soil rating: No

Description of Melling

Setting
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium and/or slope alluvium

Typical profile
A - 0 to 6 inches: extremely stony loam
Bt - 6 to 19 inches: very cobbly clay loam
R - 19 to 29 inches: bedrock

Properties and qualities
Slope: 15 to 30 percent
Depth to restrictive feature: 12 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.8 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R047XA446UT - Mountain Shallow Loam (mountain big sagebrush)
Hydric soil rating: No

Minor Components

Fewkes

Percent of map unit: 5 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Echocreek

Percent of map unit: 4 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R047XA310UT - Upland Loam (basin wildrye)
Hydric soil rating: No

Hades

Percent of map unit: 3 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA432UT - Mountain Loam (oak)
Hydric soil rating: No

Rock outcrop

Percent of map unit: 3 percent
Landform: Ridges, escarpments
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

108—Ayoub-Dunford-Melling complex, 30 to 60 percent slopes

Map Unit Setting

National map unit symbol: k1rw
Elevation: 5,800 to 7,800 feet
Mean annual precipitation: 16 to 22 inches
Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 60 to 90 days
Farmland classification: Not prime farmland

Map Unit Composition

Ayoub and similar soils: 45 percent
Dunford and similar soils: 20 percent

Melling and similar soils: 20 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ayoub

Setting

Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium derived from andesite

Typical profile

A - 0 to 6 inches: cobbly loam
Bt1 - 6 to 12 inches: gravelly clay loam
Bt2 - 12 to 18 inches: gravelly clay loam
Bt3 - 18 to 23 inches: gravelly clay loam
C - 23 to 35 inches: very cobbly loam
R - 35 to 45 inches: bedrock

Properties and qualities

Slope: 30 to 60 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Ecological site: R047XA406UT - Mountain Gravelly Loam (mountain big sagebrush)
Hydric soil rating: No

Description of Dunford

Setting

Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium derived from andesite

Typical profile

A - 0 to 10 inches: cobbly loam
Bt1 - 10 to 21 inches: gravelly clay loam
Bt2 - 21 to 36 inches: gravelly clay loam
R - 36 to 46 inches: bedrock

Properties and qualities

Slope: 30 to 60 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained

Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Ecological site: R047XA410UT - Mountain Gravelly Loam (oak)
Hydric soil rating: No

Description of Melling

Setting

Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium derived from andesite

Typical profile

A - 0 to 6 inches: extremely stony loam
Bt - 6 to 19 inches: very cobbly clay loam
R - 19 to 29 inches: bedrock

Properties and qualities

Slope: 30 to 60 percent
Depth to restrictive feature: 12 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: R047XA446UT - Mountain Shallow Loam (mountain big sagebrush)
Hydric soil rating: No

Minor Components

Fewkes

Percent of map unit: 5 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Echocreek

Percent of map unit: 4 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R047XA310UT - Upland Loam (basin wildrye)
Hydric soil rating: No

Hades

Percent of map unit: 3 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA432UT - Mountain Loam (oak)
Hydric soil rating: No

Rock outcrop

Percent of map unit: 3 percent
Landform: Ridges, escarpments
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

128—Fewkes gravelly loam, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: k1sq
Elevation: 5,600 to 6,800 feet
Mean annual precipitation: 16 to 22 inches
Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 60 to 90 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Fewkes and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Fewkes

Setting

Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Slope alluvium derived from sandstone, quartzite and shale

Typical profile

A - 0 to 12 inches: gravelly loam
Bt1 - 12 to 17 inches: clay loam
Bt2 - 17 to 22 inches: clay loam
Btk1 - 22 to 28 inches: clay loam
Btk2 - 28 to 40 inches: clay loam
Bk1 - 40 to 50 inches: clay loam
Bk2 - 50 to 60 inches: clay loam

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Minor Components

Ant flat

Percent of map unit: 5 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Hades

Percent of map unit: 4 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA432UT - Mountain Loam (oak)
Hydric soil rating: No

Lucky star

Percent of map unit: 3 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: F047XA531UT - High Mountain Stony Loam (quaking aspen)
Hydric soil rating: No

Yeates hollow

Percent of map unit: 3 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA461UT - Mountain Stony Loam (mountain big sagebrush)
Hydric soil rating: No

139—Harter gravelly loam, 2 to 15 percent slopes

Map Unit Setting

National map unit symbol: k1t0
Elevation: 6,100 to 7,000 feet
Mean annual precipitation: 16 to 22 inches
Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 60 to 90 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Harter and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Harter

Setting

Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex

Typical profile

A1 - 0 to 5 inches: gravelly loam
A2 - 5 to 12 inches: gravelly loam
AB - 12 to 19 inches: gravelly loam
Bt1 - 19 to 24 inches: gravelly clay loam
Bt2 - 24 to 33 inches: gravelly clay
Bt3 - 33 to 60 inches: gravelly clay

Properties and qualities

Slope: 2 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Minor Components

Yeates hollow

Percent of map unit: 5 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA461UT - Mountain Stony Loam (mountain big sagebrush)
Hydric soil rating: No

Ant flat

Percent of map unit: 4 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Henefer

Percent of map unit: 3 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R047XA432UT - Mountain Loam (oak)
Hydric soil rating: No

Snyderville

Percent of map unit: 3 percent
Landform: Outwash terraces, stream terraces
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA406UT - Mountain Gravelly Loam (mountain big sagebrush)
Hydric soil rating: No

158—Melling-Ayoub-Rock outcrop complex, 10 to 30 percent slopes

Map Unit Setting

National map unit symbol: k1tm
Elevation: 6,400 to 7,200 feet
Mean annual precipitation: 16 to 22 inches
Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 60 to 90 days

Farmland classification: Not prime farmland

Map Unit Composition

Melling and similar soils: 50 percent
Ayoub and similar soils: 30 percent
Rock outcrop: 10 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Melling

Setting

Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium derived from andesite over residuum weathered from andesite

Typical profile

A - 0 to 6 inches: extremely stony loam
Bt - 6 to 19 inches: very cobbly clay loam
R - 19 to 29 inches: bedrock

Properties and qualities

Slope: 10 to 30 percent
Depth to restrictive feature: 12 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R047XA446UT - Mountain Shallow Loam (mountain big sagebrush)
Hydric soil rating: No

Description of Ayoub

Setting

Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium derived from andesite and/or slope alluvium derived from andesite

Typical profile

A - 0 to 6 inches: cobbly loam
Bt1 - 6 to 12 inches: gravelly clay loam
Bt2 - 12 to 18 inches: gravelly clay loam
Bt3 - 18 to 23 inches: gravelly clay loam

C - 23 to 35 inches: very cobbly loam
R - 35 to 45 inches: bedrock

Properties and qualities

Slope: 10 to 30 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: R047XA406UT - Mountain Gravelly Loam (mountain big sagebrush)
Hydric soil rating: No

Description of Rock Outcrop

Setting

Landform: Ridges on mountain slopes, escarpments on mountain slopes

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Dunford

Percent of map unit: 5 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA410UT - Mountain Gravelly Loam (oak)
Hydric soil rating: No

Echocreek

Percent of map unit: 5 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R047XA310UT - Upland Loam (basin wildrye)
Hydric soil rating: No

178—Wanship loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: k1v7
Elevation: 6,300 to 7,200 feet
Mean annual precipitation: 16 to 22 inches
Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 60 to 90 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Wanship and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wanship

Setting

Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from sandstone and conglomerate

Typical profile

A1 - 0 to 8 inches: loam
A2 - 8 to 14 inches: loam
A3 - 14 to 24 inches: loam
2C1 - 24 to 26 inches: extremely cobbly loamy sand
2C2 - 26 to 60 inches: extremely cobbly loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: About 20 to 30 inches
Frequency of flooding: Rare
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): 4w
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: B

Ecological site: R047XA004UT - Interzonal Cold Semi-wet Fresh Meadow (meadow sedge/tufted hairgrass)
Hydric soil rating: No

Minor Components

Kovich

Percent of map unit: 5 percent
Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R047XA008UT - Interzonal Wet Fresh Meadow (sedge)
Hydric soil rating: Yes

Snyderville

Percent of map unit: 5 percent
Landform: Stream terraces, outwash terraces
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA406UT - Mountain Gravelly Loam (mountain big sagebrush)
Hydric soil rating: No

179—Wanship-Kovich loams, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: k1v8
Elevation: 5,200 to 8,000 feet
Mean annual precipitation: 16 to 22 inches
Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 60 to 90 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Wanship and similar soils: 55 percent
Kovich and similar soils: 30 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wanship

Setting

Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from sandstone and conglomerate

Typical profile

A1 - 0 to 8 inches: loam
A2 - 8 to 14 inches: loam

A3 - 14 to 24 inches: loam
2C1 - 24 to 26 inches: extremely cobbly loamy sand
2C2 - 26 to 60 inches: extremely cobbly loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: About 20 to 30 inches
Frequency of flooding: Rare
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): 4w
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: B
Ecological site: R047XA004UT - Interzonal Cold Semi-wet Fresh Meadow (meadow sedge/tufted hairgrass)
Hydric soil rating: No

Description of Kovich

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Alluvium derived from sandstone, quartzite and shale

Typical profile

A1 - 0 to 9 inches: loam
A2 - 9 to 22 inches: clay loam
A3 - 22 to 29 inches: clay loam
2C - 29 to 44 inches: fine sandy loam
3C - 44 to 60 inches: very gravelly loamy fine sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.1 inches)

Interpretive groups

Land capability classification (irrigated): 6w
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: C/D
Ecological site: R047XA008UT - Interzonal Wet Fresh Meadow (sedge)
Hydric soil rating: Yes

Minor Components

Toddspan

Percent of map unit: 6 percent
Landform: Valley floors, flood plains
Down-slope shape: Linear
Across-slope shape: Convex, concave
Ecological site: R047XA008UT - Interzonal Wet Fresh Meadow (sedge)
Hydric soil rating: Yes

Snyderville

Percent of map unit: 5 percent
Landform: Outwash terraces, stream terraces
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA406UT - Mountain Gravelly Loam (mountain big sagebrush)
Hydric soil rating: No

Dastrup

Percent of map unit: 4 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA308UT - Upland Loam (basin big sagebrush)
Other vegetative classification: Upland Loam (Mountain Big Sagebrush) (047XA308UT_2)
Hydric soil rating: No

183—Water

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

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DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
1325 J STREET
SACRAMENTO CA 95814-2922

April 24, 2026

Regulatory Division (SPK-2026-00180)

Summit County Service Area
Attn: Ms. Jody Anagnos
629 East Parkway Drive
Park City, Utah 84098
aclerk@scsa3.org

Dear Ms. Anagnos:

We are responding to your March 31, 2026, request for a determination that no Clean Water Act Section 404 permit is required for the Crescent Junction Water Improvement project. This project involves activities in waters of the United States to construct a culinary water improvement project. The approximately 17-acre project site is located along four separate sites of Silver Creek, Latitude 40.743038°, Longitude -111.486984°, Park City, Summit County, Utah (Enclosure 1).

We do not have enough information to make a determination that the proposed project does not require a Section 404 permit from this office. We would require work plans that show what specific work is proposed to occur and where, and an aquatic resources delineation report for work areas that are not clearly upland. The following comments regarding the proposed work may assist you in determining if a Section 404 permit is required or if additional coordination with this office would be beneficial.

Regarding the Greenfield Water Line, Whileaway Water Line, Beehive Water Line, and the Crescent Water Line and Tank Overflow/Drain: If the proposed work would be geographically limited to the roadway and not impact any potential waters of the U.S., no Section 404 permit would be required. If utility line installation would impact waters of the U.S., the work may be covered under a non-notifying NWP 58. If the project would meet all terms and conditions of the NWP 58, meet all Utah regional conditions, adhere to the associated water quality certification, and not require notification to our office as specified in the permit summary, you can complete the work with no notification or concurrence from this office (Enclosures 2, 3, and 4).

Greenfield Well: If the proposed work is limited to previously filled upland areas and would not result in the discharge of dredged or fill material into potential waters of the U.S, no permit would be required from the Corps.

Silver Bullet Tank and Crescent Storage Tank & Access Road: If all work that would result in the discharge of dredged or fill material would occur in upland areas, such as areas dominated by mountain big sagebrush (Artemisia tridentata), no Corps permit would be required.

Please refer to identification number SPK-2026-00180 in any correspondence concerning this project. If you have any questions, please contact Connor Jones at the Utah Regulatory Field Office, 523 Heritage Park Blvd, Suite 1, Layton, Utah 84041-5611, by email at connor.d.jones@usace.army.mil, or telephone at 801-516-9824.

Sincerely,

Connor Jones
Project Manager
Utah Regulatory Section

Enclosures

cc:
Aaron James, Cardinal EC aaron.james@cardinal-ec.com

SCSA#3 Culinary Water Improvement Project Aquatic Resources Review - Attachment

Enclosure 1

2026 Nationwide Permit Summary

U S Army Corps of Engineers
Sacramento District

33 CFR Part 330; Issuance of Nationwide Permits – March 15, 2026

58. Utility Line Activities for Water and Other Substances. Activities required for the construction, maintenance, repair, and removal of utility lines for water and other substances, excluding oil, natural gas, products derived from oil or natural gas, and electricity. Oil or natural gas pipeline activities or electric utility line and telecommunications activities may be authorized by NWPs 12 or 57, respectively. This NWP also authorizes associated utility line facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2-acre of waters of the United States for each single and complete project.

Utility lines: This NWP authorizes discharges of dredged or fill material into waters of the United States and structures or work in navigable waters for crossings of those waters associated with the construction, maintenance, or repair of utility lines for water and other substances, including outfall and intake structures. There must be no change in pre-construction contours of waters of the United States. A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose that is not oil, natural gas, or petrochemicals. Examples of activities authorized by this NWP include utility lines that convey water, sewage, stormwater, wastewater, brine, irrigation water, and industrial products that are not petrochemicals. The term "utility line" does not include activities that drain a water of the United States, such as drainage tile or French drains, but it does apply to pipes conveying drainage from another area.

Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The district engineer may extend the period of temporary side casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a French drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the electric utility line or telecommunication line crossing of each waterbody.

Utility line substations: This NWP authorizes the construction, maintenance, or expansion of substation facilities associated with a utility line in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2-acre of waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities.

Foundations for above-ground utility lines: This NWP authorizes the construction or maintenance of foundations for above-ground utility lines in all waters of the United States, provided the foundations are the minimum size necessary.

Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of utility lines, including utility line substations, in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as near as possible to pre-construction contours and elevations (e.g., at grade corduroy roads or geotextile/gravel roads). Access roads constructed above pre-construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows.

This NWP may authorize utility lines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (see 33 CFR part 322). Overhead utility lines constructed over section 10 waters and utility lines that are routed in or under section 10 waters without a discharge of dredged or fill material may require a section 10 permit.

This NWP authorizes, to the extent that Department of the Army authorization is required, temporary structures, fills, and work necessary for the remediation of inadvertent returns of drilling fluids to waters of the United States through sub-soil fissures or fractures that might occur during horizontal directional drilling activities conducted for the purpose of installing or replacing utility lines. These remediation activities must be done as soon as practicable, to restore the affected waterbody. District engineers may add special conditions to this NWP to require a remediation plan for addressing inadvertent returns of drilling fluids to waters of the United States during horizontal directional drilling activities conducted for the purpose of installing or replacing utility lines.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the utility line activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After construction, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) a section 10 permit is required; or (2) the discharge will result in the loss of greater than 1/10-acre of waters of the United States. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: Where structures or work are authorized in navigable waters of the United States (i.e., section 10 waters) within the coastal United States, the Great Lakes, and United States territories, the permittee should provide a copy of the 'as-built drawings' and the geographic coordinate system used in the 'as-built drawings' to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), to inform updates to nautical charts and Coast Pilot corrections. The information should be transmitted via email to ocs.ndb@noaa.gov.

Note 2: For utility line activities crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Utility line activities must comply with 33 CFR 330.6(d).

Note 3: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the utility line must be removed upon completion of the work, in accordance with the requirements for temporary fills.

Note 4: Pipes or pipelines used to transport gaseous, liquid, liquescent, or slurry substances over navigable waters of the United States are considered to be bridges, not utility lines, and may require a permit from the U.S. Coast Guard pursuant to the General Bridge Act of 1946. However, any discharges of dredged or fill material into waters of the United States associated with such pipelines will require a section 404 permit (see NWP 15).

Note 5: This NWP authorizes utility line maintenance and repair activities that do not qualify for the Clean Water Act section 404(f) exemption for maintenance of currently serviceable fills or fill structures.

Note 6: For activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b)(4) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, "District Engineer's Decision." The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

Note 7: Where structures or work are proposed in navigable waters of the United States, project proponents should ensure they provide the location and dimensions of the proposed structures to the U.S. Coast Guard (USCG) prior to submittal of a Pre-Construction Notification, or prior to beginning construction. The USCG may assess potential navigation-related concerns associated with the location of proposed structures or work, and may inform project proponents of marking and lighting requirements necessary to comply with General Condition 1 (Navigation). For assistance identifying the appropriate USCG District or Sector Waterways Management Staff responsible for the area of the proposed work, contact USCG at CGWWM@uscg.mil.

A. Regional Conditions

1. **Regional Conditions for California**
2. **Regional Conditions for Nevada and Utah**

B. Nationwide Permit General Conditions

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

☐ 1. **Navigation**.

☐ (a) No activity may cause more than a minimal adverse effect on navigation.

☐ (b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

☐ (c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the

Secretary of the Army or his or her authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

☐ 2. **Aquatic Life Movements**. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

☐ 3. **Spawning Areas**. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

☐ 4. **Migratory Bird Breeding Areas**. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

☐ 5. **Shellfish Beds**. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

☐ 6. **Suitable Material**. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

☐ 7. **Water Supply Intakes**. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

☐ 8. **Adverse Effects From Impoundments**. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

☐ 9. **Management of Water Flows**. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows, including tidal flows. The activity must not restrict or impede the passage of normal or high flows, including tidal flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

☐ 10. **Fills Within 100-Year Floodplains**. The activity must comply with applicable FEMA approved state or local floodplain management requirements.

☐ 11. **Equipment**. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance. If mats are used to minimize soil disturbance, the affected areas must be returned to pre-construction elevations, and revegetated as appropriate. In circumstances where the use of mats has caused significant soil compaction, efforts using techniques (e.g., soil reaeration techniques) to break up the compaction should be employed to return the soil to a pre-construction state prior to returning to pre-construction elevations.

☐ 12. **Soil Erosion and Sediment Controls**. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

☐ 13. **Removal of Temporary Fills**. Temporary structures must be removed, to the maximum extent practicable, after their use has been discontinued. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

☐ 14. **Proper Maintenance**. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

☐ 15. **Single and Complete Project**. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

☐ 16. **Wild and Scenic Rivers**.

☐ (a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

☐ (b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. Permittees shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

☐ (c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/.

☐ 17. **Tribal Rights**. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

☐ 18. **Endangered Species**.

☐ (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify designated critical habitat or critical habitat proposed for such designation. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. See 50 CFR 402.02 for the definition of "effects of the action" for the purposes of ESA section 7 consultation.

☐ (b) Federal agencies should follow their own procedures for complying with the requirements of the ESA (see 33 CFR 330.4(f)(1)). If pre-construction notification is required for the proposed activity, the federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

☐ (c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat or critical habitat proposed for such designation, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect federally-listed endangered or threatened species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation), the pre-construction notification must include the name(s) of the endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or that utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. For activities where the non-federal applicant has identified listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have "no effect" on listed species (or species proposed for listing or designated critical habitat (or critical habitat proposed for such designation), or until ESA section 7 consultation or conference has been completed. If the non-federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

☐ (d) As a result of formal or informal consultation or conference with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

☐ (e) Authorization of an activity by an NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

☐ (f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal permittee should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

☐ (g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.nmfs.noaa.gov/pr/species/esa/ respectively.

☐ 19. **Migratory Birds and Bald and Golden Eagles**. The permittee is responsible for ensuring that an action authorized by an NWP complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting the appropriate local office of the U.S. Fish and Wildlife Service to determine what measures, if any, are necessary or appropriate to reduce adverse effects to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

☐ 20. **Historic Properties**.

☐ (a) No activity is authorized under any NWP which may have the potential to cause effects on properties listed, or eligible for listing, in the National Register of Historic Places until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

☐ (b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)(1)). If pre-construction notification is required for the proposed NWP activity, the federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

☐ (c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects on any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts commensurate with potential impacts, which may include background research, consultation, oral history interviews, sample field investigation, and/or field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect.

☐ (d) Where the non-federal applicant has identified historic properties on which the proposed NWP activity might have the potential to cause effects and has so notified the Corps, the non-federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects on historic properties or that NHPA section 106 consultation has been completed. For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

☐ (e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

☐ 21. **Discovery of Previously Unknown Remains and Artifacts**. Permittees that discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activities authorized by NWPs, must immediately notify the district engineer of what they have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the federal, tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

☐ 22. **Designated Critical Resource Waters**. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

☐ (a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, 52, 57 and 58 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

☐ (b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed by permittees in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after she or he determines that the impacts to the critical resource waters will be no more than minimal.

☐ 23. **Mitigation**. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

☐ (a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

☐ (b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

☐ (c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

☐ (d) Compensatory mitigation at a minimum one-for-one ratio will be required for all losses of stream bed that exceed 3/100-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. This compensatory mitigation requirement may be satisfied through the restoration or enhancement of riparian areas next to streams in accordance with paragraph (e) of this general condition. For losses of stream bed of 3/100-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, because streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

☐ (e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. If restoring riparian areas involves planting vegetation, only native species should be planted. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

☐ (f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

☐ (1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

☐ (2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f).)

☐ (3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

☐ (4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). If permittee-responsible mitigation is the proposed option, and the proposed compensatory mitigation site is located on land in which another federal agency holds an easement, the district engineer will coordinate with that federal agency to determine if proposed compensatory mitigation project is compatible with the terms of the easement.

☐ (5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan needs to address only the baseline conditions at the impact site and the number of credits to be provided (see 33 CFR 332.4(c)(1)(ii)).

☐ (6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

☐ (g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

☐ (h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

☐ (i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

☐ 24. **Safety of Impoundment Structures**. To ensure that all impoundment structures are safely designed, the district engineer may require non-federal applicants to demonstrate that the structures comply with established state or federal, dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

☐ 25. **Water Quality**.

☐ (a) Where the certifying authority (state, authorized tribe, or EPA, as appropriate) has not previously certified compliance of an NWP with CWA section 401, a CWA section 401 water quality certification for the proposed activity which may result in any discharge from a point source into waters of the United States must be obtained or waived (see 33 CFR 330.4(c)). If the permittee cannot comply with all of the conditions of a water quality certification previously issued by the certifying authority for the issuance of the NWP, then the permittee must obtain a water quality certification or waiver for the proposed activity which may result in any discharge from a point source into waters of the United States in order for the activity to be authorized by an NWP.

☐ (b) If the NWP activity requires pre-construction notification and the certifying authority has not previously certified compliance of an NWP with CWA section 401, the proposed activity which may result in any discharge from a point source into waters of the United States is not authorized by an NWP until water quality certification is obtained or waived. If the certifying authority issues a water quality certification for the proposed discharge into waters of the United States, the permittee must submit a copy of the certification to the district engineer. The discharge into waters of the United States is not authorized by an NWP until the district engineer has notified the permittee that the water quality certification requirement has been satisfied (i.e., by the issuance of a water quality certification or a waiver and completion of the Section 401(a)(2) process).

☐ (c) The district engineer or certifying authority may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

California 401 Water Quality Certification Status

Nevada 401 Water Quality Certification Status

Utah 401 Water Quality Certification Status

☐ 26. **Coastal Zone Management**. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). If the permittee cannot comply with all of the conditions of a coastal zone management consistency concurrence previously issued by the state, then the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP. The district engineer or a state may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

☐ 27. **Regional and Case-By-Case Conditions**. The activity must comply with any regional conditions that may have been added by the division engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its CWA section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

☐ 28. **Use of Multiple Nationwide Permits**. The use of more than one NWP for a single and complete project is authorized, subject to the following restrictions:

☐ (a) The total acreage loss of waters of the United States for a single and complete project cannot exceed the acreage limit of the NWP with the highest specified acreage limit when multiple NWPs are used to authorize an activity.

☐ (b) If only one of the NWPs used to authorize the single and complete project has a specified acreage limit, the acreage loss of waters of the United States for that single and complete project cannot exceed that specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14 (which has an acreage limit of 1/3 acre in tidal waters), with associated bank stabilization authorized by NWP 13 (which does not have a specified acreage limit), the maximum acreage loss of waters of the United States for the total project cannot exceed 1⁄3-acre.

☐ (c) If two or more of the NWPs used to authorize the single and complete project have specified acreage limits, the acreage loss of waters of the United States authorized by each of those NWPs cannot exceed the specified acreage limits of each of those NWPs. For example, if a commercial development is constructed under NWP 39 (which as a 1/2-acre limit), and the single and complete project includes the filling of a ditch authorized by NWP 46 (which has a 1-acre limit), the maximum acreage loss of waters of the United States for the construction of the commercial development under NWP 39 cannot exceed 1/2-acre, and the total acreage loss of waters of United States caused by the combination of the NWP 39 and NWP 46 activities cannot exceed 1 acre.

☐ 29. **Transfer of Nationwide Permit Verifications**. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

____

(Transferee)

____

(Date)

☐ 30. **Compliance Certification**. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The successful completion of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

☐ (a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

☐ (b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

☐ (c) The signature of the permittee certifying the completion of the activity and mitigation. The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

☐ 31. **Activities Affecting Structures or Works Built by the United States**. If an NWP activity also requires review by, or permission from, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a "USACE project"), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission and/or review is not authorized by an NWP until the appropriate Corps office issues the section 408 permission or completes its review to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

☐ 32. **Pre-Construction Notification**.

☐ (a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

☐ (1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

☐ (2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

☐ (b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

☐ (1) Name, address and telephone numbers of the prospective permittee;

☐ (2) Location of the proposed activity;

☐ (3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

☐ (4)

☐ (i) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures.

☐ (ii) For linear projects where one or more single and complete crossings require preconstruction notification, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters (including those single and complete crossings authorized by an NWP but do not require PCNs). This information will be used by the district engineer to evaluate the cumulative adverse environmental effects of the proposed linear project, and does not change those non-PCN NWP activities into NWP PCNs.

☐ (iii) Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

☐ (5) The PCN must include a delineation of waters, wetlands, and other special aquatic sites on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45-day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate. For NWP 27 activities that require PCNs because of other general conditions or regional conditions imposed by division engineers, see Note 2 of that NWP;

☐ (6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed and a PCN is required, the prospective permittee must submit a statement describing how the compensatory mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

☐ (7) For non-federal permittees, if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat (or critical habitat proposed for such designation), the PCN must include the name(s) of those endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. For NWP activities that require pre-construction notification, federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

☐ (8) For non-federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require preconstruction notification, federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

☐ (9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the "study river" (see general condition 16); and

☐ (10) For an NWP activity that requires permission from, or review by, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from, or review by, the Corps office having jurisdiction over that USACE project.

☐ (c) <u>Form of Pre-Construction Notification</u>: The nationwide permit pre-construction notification form (Form ENG 6082) should be used for NWP PCNs. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

☐ (d) <u>Agency Coordination</u>:

☐ (1) The district engineer will consider any comments from federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

☐ (2) Agency coordination is required for: (i) all NWP activities that require preconstruction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iii) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

☐ (3) When agency coordination is required, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or e-mail that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the preconstruction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure that the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

☐ (4) In cases where the prospective permittee is not a federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

☐ (5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

C. District Engineer's Decision

☐ 1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific NWP, the district engineer should issue the NWP verification for that activity if it meets the terms and conditions of that NWP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual and cumulative adverse effects on the aquatic environment and other aspects of the public interest and exercises discretionary authority to require an individual permit for the proposed activity. For a linear project, this determination will include an evaluation of the single and complete crossings of waters of the United States that require PCNs to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings of waters of the United States authorized by an NWP. If an applicant requests a waiver of an applicable limit, as provided for in NWPs 13, 36, or 54, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in only minimal individual and cumulative adverse environmental effects.

☐ 2. When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by an NWP and whether those cumulative adverse environmental effects are no more than minimal. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional or condition assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse environmental effects determination. The district engineer may add activity-specific conditions to the NWP authorization to address site-specific environmental concerns.

☐ 3. If the proposed NWP activity requires a PCN and will result in a loss of greater than 1/10acre of wetlands or 3/100-acre of stream bed, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for NWP activities with smaller impacts, or for impacts to other types of waters. However, compensatory mitigation shall not be required for activities authorized by NWP 27 because those activities must result in net increases in aquatic resource functions and services (see the text of NWP 27). The district engineer will consider any proposed compensatory mitigation or other mitigation measures the applicant has included in the proposal when determining whether the net adverse environmental effects of the proposed NWP activity are no more than minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the proposed activity complies with the terms and conditions of the NWP and that the adverse environmental effects are no more than minimal, after considering mitigation, the district engineer will notify the permittee and include any activity specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure that the NWP activity results in no more than minimal adverse environmental effects. If the net adverse environmental effects of the NWP activity (after consideration of the mitigation proposal) are determined by the district engineer to be no more than minimal, the district engineer will provide a timely written response to the applicant. The response will state that the NWP activity can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

☐ 4. If the district engineer determines that the adverse environmental effects of the proposed NWP activity are more than minimal, then the district engineer will notify the applicant either: (a) that the activity does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the activity is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal; or (c) that the activity is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse environmental effects, the activity will be authorized within the 45-day PCN review period (unless additional time is required to comply with general conditions 16, 18, 20, and/or 31), with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation plan or a requirement that the applicant submit a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal. When compensatory mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

D. Further Information

1. District engineers have authority to determine if an activity complies with the terms and conditions of an NWP.

2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.

3. NWPs do not grant any property rights or exclusive privileges.

4. NWPs do not authorize any injury to the property or rights of others.

5. NWPs do not authorize interference with any existing or proposed Federal project (see general condition 31).

E. Nationwide Permit Definitions

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.

Discharge: The term "discharge" means any discharge of dredged or fill material into waters of the United States.

Ecological reference: A model used to plan and design an aquatic ecosystem restoration, enhancement, or establishment activity under NWP 27. An ecological reference may be based on: (1) the structure, functions, and dynamics of an aquatic ecosystem type or a riparian area type that currently exists in the region; (2) the structure, functions, and dynamics of an aquatic ecosystem type or riparian area type that existed in the region in the past; and/or (3) indigenous and local ecological knowledge that apply to the aquatic ecosystem type or riparian area type (i.e., a cultural ecosystem). Cultural ecosystems are ecosystems that have developed under the joint influence of natural processes and human management activities (e.g., fire stewardship). An ecological reference takes into account the range of variation of the aquatic habitat type or riparian area type in the region.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

High Tide Line: The line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps Regulatory Program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. The loss of stream bed includes the acres of stream bed that are permanently adversely affected by filling or excavation because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters or wetlands for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities that do not require Department of the Army authorization, such as activities eligible for exemptions under section 404(f) of the Clean Water Act, are not considered when calculating the loss of waters of the United States.

Nature-based solutions: Actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits.

Navigable waters: Waters subject to section 10 of the Rivers and Harbors Act of 1899. These waters are defined at 33 CFR part 329.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of flowing or standing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of "open waters" include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Perennial stream: A perennial stream has surface water flowing continuously year-round during a typical year.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Reestablishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a course substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands next to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects riverine, lacustrine, estuarine, and marine waters with their adjacent wetlands, non-wetland waters, or uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 23.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term "single and complete project" is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Single and complete non-linear project: For non-linear projects, the term "single and complete project" is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility (see definition of "independent utility"). Single and complete non-linear projects may not be "piecemealed" to avoid the limits in an NWP authorization.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. The substrate may also be comprised, in part, of organic matter, such as large or small wood fragments, leaves, algae, and other organic materials. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream's course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized jurisdictional stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a jurisdictional wetland that is inundated by tidal waters. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line.

Tribal lands: Any lands title to which is either: 1) held in trust by the United States for the benefit of any Indian tribe or individual; or 2) held by any Indian tribe or individual subject to restrictions by the United States against alienation.

Tribal rights: Those rights legally accruing to a tribe or tribes by virtue of inherent sovereign authority, unextinguished aboriginal title, treaty, statute, judicial decisions, executive order or agreement, and that give rise to legally enforceable remedies.

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWPs, a waterbody is a "water of the United States." If a wetland is adjacent to a waterbody determined to be a water of the United States, that waterbody and any adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)).

Final 2026 Nationwide Permit (NWP) Regional Conditions for the States of Nevada and Utah

(Effective March 15, 2026, until March 15, 2031)

A. Regional Conditions for the States of Nevada and Utah:

1. The permittee shall submit a pre-construction notification (PCN), in accordance with General Condition 32, in the following circumstances:

   a. Activities involving new bank stabilization that do not incorporate bioengineering techniques. Bioengineering techniques include using live plants alone or in combination with dead or inorganic materials, including rock, sand, or gravel;

   b. Activities resulting in a discharge of dredged or fill material in waters of the United States on Tribal Lands; and,

   c. Activities involving the permanent channelization, realignment, or relocation of streams.

2. The use of NWPs 4, 5, 7, 12 - 15, 17, 18, 21 - 23, 25, 29 – 31, 33, 34, 39 - 51, 57, or 58, authorizing the discharge of dredged and/or fill material is prohibited:

   a. in peatlands[1] containing histosols, including bogs and fens; and,

   b. below the ordinary high-water mark of the Great Salt Lake containing bioherms (microbialites).

B. 401 Water Quality Certification (401 WQC) Regional Conditions for Nevada:

1. For all NWPs (except 24 and 34) on tribal lands within U.S. Environmental Protection Agency (EPA), Region 9 boundaries in the State of Nevada, the permittee shall comply with all terms and conditions of the attached December 11, 2025, Section 401 WQC granted by the U.S. EPA.

2. For NWPs 1, 4 – 6, 9 – 11, 20 – 22, 28, 30, 32, 34, 49, and 50, on non-tribal lands within the State of Nevada, the permittee shall comply with all terms and conditions of the attached November 25, 2025, Section 401 WQC granted by the Nevada Division of Environmental Protection.

C. 401 Water Quality Certification (401 WQC) Regional Conditions for Utah:

1. For all NWPs, except those that involve dam maintenance/rehabilitation or reservoir dewatering, on non-tribal lands within the State of Utah, the permittee shall comply with all terms and conditions of the attached December 4, 2025, 401 WQC granted by the State of Utah, Department of Environmental Quality.

[1]A peatland is defined as a wetland with saturated organic soil (greater than or equal to 16 inches in thickness) that is classified as a histosol in the Natural Resources Conservation Service (NRCS) Field Indicators of Hydric Soils in the United States (Version 8.0, 2016). A copy of the document can be obtained from the NRCS at: http://www.nrcs.usda.gov/Internet/_DOCUMENTS/nrcs142p2_053171.pdf

2. For all NWPs (except 1, 2, 4, 8 - 11, 22, 24, 28, 34, 35, 48, 54, and 55) on tribal lands on Indian country[2] in the State of Utah,[3] and lands of exclusive federal jurisdiction in relevant respects within the state of Utah, the permittee shall comply with all terms and conditions of the attached December 16, 2025, 401 WQC granted by the U.S. EPA.

3. For NWPs 3, 5, 6, 7, 13, 14, 15, 18, 19, 20, 23, 25, 27, 30, 31, 32, 33, 36, 38, 41, 43, 45, 46, 57, and 59, except NWPs applied “after-the-fact” (i.e., after the discharge has occurred) or to NWPs where a waiver on limits has been granted by the District or Division Engineer, on the Ute Mountain Ute Reservation in the State of Utah, the permittee shall comply with all terms and conditions of the attached December 16, 2025, 401 WQC granted by Ute Mountain Ute Tribe.

[2] Indian country is defined at 18 U.S.C. § 1151.

[3] Indian country in Utah generally includes (1) lands within the exterior boundaries of the following Indian reservations located within Utah: the Goshute Reservation, the Navajo Indian Reservation, the reservation lands of the Paiute Indian Tribe of Utah (Cedar Band of Paiutes, Kanosh Band of Paiutes, Koosharem Band of Paiutes, Indian Peaks Band of Paiutes, and Shivwits Band of Paiutes), the Skull Valley Indian Reservation, the Uintah and Ouray Reservation (subject to federal court decisions removing certain lands from Indian country status within the Uintah and Ouray Reservation), and the Washakie Reservation; (2) any land held in trust by the United States for an Indian Tribe (including but not limited to the Ute Mountain Ute Tribe); and (3) any other areas that are “Indian country” within the meaning of 18 U.S.C. Section 1151. The enclosed CWA Section 401 certification document specifies where these decisions apply.

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

Section 401 Water Quality Certification No. DWQ-2025-06001

Project Proponents:	U. S Army Corps of Engineers Michael Jewell, Chief Regulatory Division Sacramento District 1325 J Street Sacramento, CA 95814
Project:	On June 18, 2025, the U.S Army Corps of Engineers issued 90 FR 26100 Proposal to Reissue and Modify Nationwide Permits (NWP). The USACE is proposing to reissue 56 of the existing 2021 NWPs, along with associated general conditions and definitions, with minor changes. Additionally, the USACE is proposing to issue one new NWP. The proposed new NWP A (Fish and Aquatic Organism Passage) would authorize activities to improve the fish passage and other aquatic organisms through aquatic ecosystems. NWPs are general permits issued by the U.S. Army Corps of Engineers (USACE) to authorize categories of activities under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899 that have no more than minimal individual and cumulative adverse environmental effects. NWP streamline the authorization process for those minor activities
Location:	State of Utah
Watercourse(s):	Waters of the United States (WOTUS)
Effective Date:	December 4, 2025

Enclosure 4

Table of Contents

I. Definitions

A. **Blue Ribbon Fishery:** status administered by the Utah Division of Wildlife Resources and the Blue Ribbon Advisory Council that indicates the waterbody has high quality in the following attributes: fishing, outdoor experience, fish habitat, and economic benefits.

B. **Beneficial Use Classes** are how waters of the state are grouped and classified to protect against controllable pollution the beneficial uses designated within each class. UAC R317-2-6.

C. **Category 1 Waters** are *"Waters which have been determined by the Board to be of exceptional recreational or ecological significance or have been determined to be a State or National resource requiring protection, shall be maintained at existing high quality through designation, by the Board after public hearing, as Category 1 Waters."* UAC R317-2-3.2

D. **Category 2 Waters** *"are designated surface water segments which are treated as Category 1 Waters except that a point source discharge may be permitted provided that the discharge does not degrade existing water quality."* UAC R317-2-3.3

E. **Designated Beneficial Uses** means a water's present most reasonable uses, grouped by use classes to protect the uses against controllable pollution. Beneficial uses designated within each class are described in Utah Administrative Code (UAC) R317-2-6 and waterbodies beneficial uses can be found in UAC R317-2-13. For the purposes of this document, the term "designated beneficial uses" will be used to describe all uses required to be protected by Utah water quality standards and antidegradation policy.

F. **Director Notification** means submittal of the U.S. Army Corps of Engineers (USACE) application and any supplemental attachments to the Utah Department of Environmental Quality (DEQ), Director of the Utah Division of Water Quality (DWQ) for review.

G. **Existing Uses** *"means those uses actually attained in a water body on or after November 28, 1975, whether or not they are included in the water quality standards."* UAC R317-1-1.*" If a situation is found where there is an existing use which is a higher use (i.e., more stringent protection requirements) than that current designated use, the Director will apply the water quality standards and anti-degradation policy to protect the existing use."* UAC R317-2-3.

H. **Level I Antidegradation Review (ADR):** *"is conducted to insure that existing uses will be maintained and protected."* UAC R317-2-3.5

I. **Level II Antidegradation Review (ADR)** is conducted to insure that water quality degradation is necessary and that the proposed activity is documented to be both economically and socially important. Level II ADRs are required for any activity that's impacts are not considered temporary and limited and is likely to result in degradation of water quality.

J. **Project Proponent** *"means the applicant for license or permit or entity seeking certification."* 40 CFR §121.1.

K. **Total Maximum Daily Load (TMDL)** *"means the maximum amount of a particular pollutant that a waterbody can receive and still meet state water quality standards, and an allocation of that amount to the pollutant's sources."* UAC R317-1-1

L. **<u>Waters of the United States (WOTUS)</u>** means waterbodies subject to the provisions of the Clean Water Act.

M. **<u>303(d) list</u>** is a state's list of impaired and threatened waters, including but not limited to; streams, lakes, and reservoirs adopted to implement the Clean Water Act Section 303(d).

II. Acronyms

AU – Assessment Unit
BMPs – Best Management Practices
CFR – Code of Federal Regulations
CWA – Clean Water Act
CY – cubic yards
DEQ – Utah Department of Environmental Quality
DWQ – Utah Division of Water Quality
EIS – Environmental Impact Statement
EPA – Environmental Protection Agency
mg/L – milligrams per liter
MS4 – Municipal Separate Storm Sewer System
NEPA – National Environmental Policy Act
NOI – Notice of Intent
NTU – Nephelometric Turbidity Units
NWP – nationwide permit
SWPPP – stormwater pollution prevention plan
TMDL – Total Maximum Daily Load
TSS – total suspended solids
UAC – Utah Administrative Code
UPDES – Utah Pollutant Discharge Elimination System
USACE – U.S. Army Corps of Engineers
WQC – Water Quality Certification
WQS – Utah Water Quality Standards
WOTUS – Waters of the United States

III. Executive Summary

Pursuant to Section 401 of the CWA 33 U.S.C. Section 1251 et seq., the DWQ grants Water Quality Certification (Certification) to all USACE Nationwide Permits (NWPs) in Utah proposed by 90 FR 26100 except those that involve dam maintenance/rehabilitation or reservoir dewatering. Certification is subject to the conditions outlined in this document and adherence to the Sacramento Districts Regional Conditions, and adherence to any conditions outlined in the proposed NWPs. The conditions outlined in this Certification are necessary to assure compliance with effluent limitations, monitoring requirements, and/or other applicable laws and regulations adopted for state primacy of the CWA.

DWQ's conditions are based on and are necessary to comply with applicable state rules. Specifically, the following Utah rules represent overarching considerations that require the conditions outlined by this document to apply to the USACE Section 404 NWPs: Utah's rules promulgating standards of quality for waters of the State affirm "*it shall be unlawful and a violation of these rules for any person to discharge or place any wastes or other substances in such manner as may interfere with designated uses protected by assigned classes or to cause any of the applicable standards to be violated*" UAC R317-2-7.1.a. Additionally, "*all actions to control waste discharges under these rules shall be modified as necessary to protect downstream designated uses*" UAC R317-2-8. As stated in UAC

R317-15-6.1 the Director will ordinarily consider whether the proposed discharge "*impairs the designated beneficial use classifications (e.g., aquatic life, drinking water, recreation) in Section R317-2-6*" UAC R317-15-6.1.A.1., "*exceeds water quality criteria, either narrative or numeric, in Section R317-2-7*" UAC R317-15-6.1A.2. or "*fails to meet the antidegradation (ADR) requirements of Section R317-2-7*" UAC R317-15-6.1.A.3.

On May 2, 2025, Leah Fisher the USACE Regional Permit Specialist, requested a pre-filing meeting with DWQ for the Proposal to Reissue and Modify Nationwide Permits (NWP). DWQ attended a pre-filing meeting with Leah Fisher on May 30, 2025, for the proposed 2026 reissuing of NWPs. DWQ received a complete 401 Certification request on June 18, 2025, for the proposal to reissue and modify NWP. The USACE determined the reasonable period of time (RPOT) for DWQ to act on the certification request is six months. The certification will be considered waived if DWQ does not act on the request by December 15, 2025.

IV. Background

Nationwide Permits (NWPs) are issued by the U.S. Army Corps of Engineers (USACE) to authorize categories of activities under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899 that have no more than minimal individual and cumulative adverse environmental effects. The USACE is proposing to reissue the existing NWPs, with minor modifications, along with some adjustments to the associated general conditions and definitions. The Proposal to Reissue and Modify Nationwide Permits (NWP) was published in the Federal Register on June 18, 2025, (90 FR 26100). NWPs were first issued by the USACE in 1977 (42 FR 37122) to authorize categories of activities that have minimal adverse effects on the aquatic environment and streamline the authorization process for those minor activities. Many of the NWP require the permittee to submit a pre-construction notification to the district engineer before commencing the activity.

All of the NWPs issued or reissued in 2021 are currently scheduled to expire on March 14, 2026. The USACE is proposing to reissue 56 of the 57 current 2021 NWPs, as well as one new NWP. The USACE will not reissue NWP 56, which authorizes structures in marine and estuarine waters, including federal waters, for finfish mariculture activities. The proposed new NWP A (Fish and Aquatic Organism Passage) will authorize activities to improve the fish passage and other aquatic organisms through aquatic ecosystems. Most of the NWPs will be reissued without changes; however, the USACE plans to modify two of the 2021 NWPs: NWP 48, which covers commercial shellfish mariculture activities, and NWP 56, which covers finfish mariculture activities. These modifications are a response to litigation concerning these two permits.

Additionally, the USACE is proposing to modify a few NWPs to simplify and clarify those NWPs. The proposed modifications to the general conditions and definitions are intended to reduce burdens on the regulated public and continue to comply with the statutory requirement that NWP authorize only activities with no more than minimal individual and cumulative adverse environmental effects. The USACE is also proposing regional conditions for the 2026 NWP, specific to the State of Utah, designed to ensure that the proposed NWP would result in no more than minimal, individual, and cumulative adverse environmental effects.

V. Certification Conditions

A. The Project Proponent shall provide Director Notification prior to commencing construction for the following projects:

1. Any project proposed under Nationwide Permits 3 (Maintenance), 37 (Emergency Watershed Protection and Rehabilitation), and any project proposed under NWP 27 (Aquatic Habitat Restoration, Enhancement, and Establishment Activities) where a USACE Pre-Construction Notification (PCN) is required;

2. Any proposed project that will be within 500 feet of the existing water's edge of the Great Salt Lake, Utah Lake or Bear Lake;

3. Any project with a potential to discharge to an impaired waterbody with an approved Total Maximum Daily Load (TMDL), where the project has the potential to discharge a pollutant identified/addressed by the TMDL;

4. Any project with a potential to discharge to *Category 1* or *Category 2 waters;*

B. All activities with a potential discharge to WOTUS must implement and maintain BMPs to fully protect the waterbodies assigned beneficial use(s).

C. Hazardous and otherwise deleterious materials (e.g. oil, gasoline, chemicals, trash, sawdust, etc.) shall not be stored, disposed of, or accumulated or conveyed through adjacent to or in immediate vicinity WOTUS unless adequate measures and controls are provided to ensure those materials would not enter WOTUS in the State of Utah. **Any spill or discharge of oil or other substance which may cause pollution to WOTUS in the State of Utah, including wetlands, must be immediately reported to the Utah DEQ Hotline at (801) 536-4123, a 24-hour phone number**.

D. All activities shall not cause further degradation of impaired waterbodies, as defined in DWQ's most recent 303(d) list, regardless of whether a TMDL has been completed. The Project Proponent must review impairments on the waterbodies where the Project has the potential to discharge and is responsible for ensuring that water quality standards are not exceeded and designated beneficial uses are not impaired.

E. All activities conducted in WOTUS in the State of Utah 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. The Project Proponent shall consider conducting instream work during low flow conditions and work shall not be conducted during spawning season. Additionally, construction machinery shall not be operated within WOTUS in the State of Utah unless it is unavoidable, in which case it shall be conducted in the "dry" as stated above. The work shall be conducted in a manner to minimize the duration of the disturbance, turbidity increases, substrate disturbance, and minimize the removal of riparian vegetation. Construction machinery shall be clean to prevent the transfer of aquatic invasive species.

F. Project Proponents conducting activities in or immediately adjacent to WOTUS in the State of Utah with assigned beneficial use class 1C (domestic drinking water), that are upstream 2 miles or less from any intake supply, must notify the water supply operator and the local health department prior to commencement of work. If the water supply operator or the local health department recommends additional BMPs or monitoring, the Project Proponent must consider those recommendations in their Project design.

G. All activities conducted in or immediately adjacent to WOTUS in the State of Utah with assigned beneficial use class 3A (cold water fishery) or has blue ribbon fishery designation must avoid removal of native riparian vegetation that provides stream shading to the maximum extent practicable. Any Projects that approve removal of riparian vegetation that provides shade must require reestablishment of native vegetation that provides equal or greater shade. The Project Proponent shall provide successful reestablishment of native vegetation.

H. Construction activities that disturb either greater than one acre of land, or less than one acre of land and is part of a larger common plan of development that would disturb greater than one acre, are required to obtain coverage under the Utah Pollutant Discharge Elimination System (UPDES) Storm Water General Permit for Construction Activities (Permit No. UTRC00000[[1]]). 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 be limited to, final site maps and legible plans, location of storm water outfalls/discharges, and information pertaining to any storm water retention requirements.

I. Dewatering activities, if necessary during construction, may require coverage under the UPDES General Permit for Construction Dewatering (Permit No. UTG070000[[2]]) applies to the construction dewatering of uncontaminated groundwater or surface water sources due to construction activities; hydrostatic testing of pipelines or other fluids vessels; water used in disinfection of drinking water vessels; and other similar discharges in the State of Utah that have no discharge of process wastewater. The permit requires submission of a Notice of Intent (NOI); maintenance of a discharge log; development and implementation of a dewatering control plan; and monitoring for Flow, Oil & Grease, pH, Total Suspended Solids (TSS), and Chlorine (required when chlorinated water is used and discharged to a stream with a chlorine standard). Discharge Monitoring Reports (DMRs) are required to be submitted monthly, regardless of whether a site discharges in a particular month.

VI. Condition Justification and Citation

A. Director Notification is a condition for projects identified in Part V (1) above which present an increased likelihood of jeopardizing designated beneficial uses or otherwise causing a violation of WQS, promulgated pursuant to Utah Code Sections 19-5-104, 19-5-110 and Section 303 of the Clean Water Act. Director Notification is necessary to provide the DWQ with notice and information of projects that are issued a NWP that have a potential to result in a discharge which could threaten designated beneficial uses or cause a WQS violation. The Director Notification of specifically identified projects this is applicable to.

1) Projects proposed under NWP 3, 27 and 37 require Director Notification because they often involve removing built up sediment and debris or the release of sediment and as a result have the potential to result in discharges which threaten designated beneficial uses or may cause violation(s) of WQS for turbidity. Without proper precautions, projects under NWPs 3, 27 and 37 could result in significant increases in turbidity in the waterbody proposed for discharge. Numeric water quality criteria for turbidity in certain use designations could be violated if the project proponent does not take proper steps

[1] https://deq.utah.gov/water-quality/general-construction-storm-water-updes-permits#general-permit
[2] https://deq.utah.gov/water-quality/general-construction-storm-water-updes-permits#construction-dewatering-hydrostatic-testing

to minimize the increases. WQS for turbidity will be violated if there is an increase of 10 Nephelometric Turbidity Units (NTU) in waterbodies with designated beneficial uses related to recreation and if there is an increase of 10 NTUs (3A & 3B) or 15 NTUs (3C & 3D) in waterbodies with aquatic wildlife designated beneficial uses. UAC R317-2-14.1 and UAC R317-2-14.2.

Citations: UAC R317-2-14.1, UAC R317-2-14.2., UAC R317-2-7.1.a., UAC R317-2-8. , UAC R317-15-6.1, UAC R317-15-6.1.A.1., UAC R317-15-6.1.A.2., UAC R317-15-6.1.A.3.

2) Projects within 500 feet of the Great Salt Lake, Utah Lake and Bear Lake are conditioned on Director Notification. The DWQ has determined that the Great Salt Lake, Utah Lake and Bear Lake are unique waterbodies that require special attention and are at a greater risk when projects are within 500 feet of their existing water's edge. Both Utah Lake and Bear lake have recreation designated use 2A (frequent primary contact recreation) and aquatic wildlife designated uses associated with either 3A cold water species of game fish (Bear Lake) or 3B warm water species of game fish. Both types of designated uses could be impacted by turbidity increases. Water quality criteria for turbidity will be violated if there is an increase of 10 NTUs in waterbodies with designated uses related to recreation and if there is an increase of 10 NTUs in aquatic wildlife designated use classes 3A and 3B. UAC R317-2-14.1 and UAC R317-2-14.2. Significant turbidity spikes or sediment deposits could cause a waterbody not to meet all its designated beneficial uses or if large quantities of sediment are transported downstream, it could impact the downstream beneficial uses. Utah's rules promulgating standards of quality for waters of the State affirm "it shall be unlawful and a violation of these rules for any person to discharge or place any wastes or other substances in such manner as may interfere with designated uses protected by assigned classes or to cause any of the applicable standards to be violated" UAC R317-2-7.1.a.

   Citation(s): UAC R317-2-14.1, UAC R317-2-14.2., UAC R317-2-7.1.a., UAC R317-15-6.1, UAC R317-15-6.1.A.1., UAC R317-15-6.1.A.2., UAC R317-15-6.1.A.3.

3) Projects with potential discharge to an impaired waterbody with an approved Total Maximum Daily Load (TMDL), where the project has the potential to discharge a pollutant identified/ addressed by the TMDL are conditioned on Director Notification. A total maximum daily load or TMDL "means the maximum amount of a particular pollutant that a waterbody can receive and still meet WQS, and an allocation of that amount to the pollutant's sources." UAC R317-1-1. When a waterbody is impaired and listed on the 303(d) list, states are required to create and implement TMDLs for the specific waterbody to restore water quality. Waters on Utah's most up to date 303(d) list are not currently meeting their designated beneficial uses. According to Utah's Final 2024 Integrated Report[3] the waters identified as impaired are not meeting their designated beneficial uses because "the concentration of the pollutant- or several pollutants- exceeds numeric water quality criteria, or quantitative biological assessments indicate that the biological designated uses are not supported (Narrative water quality standards are violated)." TMDLs are created to limit discharges to the waterbody with the goal of meeting designated beneficial uses. If project proponents do not adhere to the BMPs and pollutant reduction requirements identified in approved TMDLs (as applicable) then there may be a violation of WQS and designated beneficial uses could be further impacted. If the potential discharge contains pollutants/ parameters that are included in an approved TMDL, the project proponent must take extra precautions, as identified in the TMDL, to minimize and prevent discharges that could further degrade the waterbodies, and prevent the

[3] https://deq.utah.gov/water-quality/utahs-integrated-report

waterbodies from meeting its designated beneficial and existing uses. Director notification of projects with the potential to discharge to impaired water bodies with approved TMDLs will ensure consistency with TMDL requirements and goals.

Citation(s): UAC R317-1, UAC R317-2-7.1.a., UAC R317-15-6.1, UAC R317-15-6.1.A.1., UAC R317-15-6.1.A.2., UAC R317-15-6.1.A.3.

4) Projects with potential discharges to Category 1 and Category 2 waters are conditioned on Director Notification in order to ensure that the Utah DWQ's Antidegradation Policies are being implemented effectively. Category 1 waters are "waters which have been determined by the Board to be of exceptional recreational or ecological significance or have been determined to be a State or National resource requiring protection, shall be maintained at existing high quality through designation, by the Board after public hearing, as Category 1 Waters." UAC R317-2-3.2. Category 2 waters "are designated surface water segments which are treated as Category 1 Waters except that a point source discharge may be permitted provided that the discharge does not degrade existing water quality." UAC R317-2-3.3. Discharges may be allowed in Category 1 and Category 2 waters "where pollution will be temporary and limited after consideration of the factors in UAC R317-2-.3.5.b.4., and where best management practices will be employed to minimize pollution effects." UAC R317-2-3.2 and UAC R317-2-3.3.

   Although NWPs are typically issued for projects with minimal impacts to water quality, the NWPs do not take into consideration the quality of the water affected. In order to comply with the Antidegradation Policy outlined by UAC R317-2-3.5.b.4, requiring that pollution to Category 1 and Category 2 waters be temporary and limited, the DWQ must review all projects with the potential to discharge to those waters. Without the ability to review the individual projects proposing to discharge to Category 1 and Category 2 waters, the DWQ cannot assure that they will meet the antidegradation policy or other applicable water quality requirements. As stated in UAC R317-15-6.1 the Director will ordinarily consider whether the proposed discharge "impairs the designated beneficial use classifications (e.g., aquatic life, drinking water, recreation) in Section R317-2-6" UAC R317-15-6.1.A.1., "exceeds water quality criteria, either narrative or numeric, in Section R317-2-7" UAC R317-15-6.1A.2. or "fails to meet the antidegradation (ADR) requirements of Section R317-2-7" UAC R317-15-6.1.A.3 when making a certification decision.

   Citation(s): UAC R317-2-3.2., UAC R317-2-3.3. , UAC R317-15-6.1, UAC R317-15-6.1.A.1., UAC R317-15-6.1.A.2., UAC R317-15-6.1.A.3.

B. Implementation of BMPs. Project approval is conditioned on implementation of BMPs, which are required to be implemented by the antidegradation policy in UAC R317-2-3. Water quality standards could be violated unless appropriate BMPs are incorporated to minimize the erosion-sediment and nutrient load. Violations of water quality standards could cause a waterbody to fail to meet its designated beneficial uses. As required by Utah's antidegradation policy UAC R317-2-3.1 "*Existing instream water uses shall be maintained and protected. No water quality degradation is allowable which would interfere with or become injurious to existing instream water uses*." As stated in UAC R317-15-6.1 the Director will ordinarily consider whether the proposed discharge "*impairs the designated beneficial use classifications (e.g., aquatic life, drinking water, recreation) in Section R317-2-6*" UAC R317-15-6.1.A.1., "*exceeds water quality criteria, either narrative or numeric, in Section R317-2-7*" UAC R317-15-6.1A.2. or "*fails to meet the antidegradation (ADR) requirements of Section R317-2-7*" UAC R317-15-6.1.A.3 when making a

Certification decision. If appropriate BMPs are incorporated, there is assurance that the Project will not violate water quality standards or impair a waterbody's beneficial use.

Citation(s): UAC R317-2-3.1, UAC R317-15-6.1, UAC R317-15-6.1.A.1., UAC R317-15-6.1.A.2., UAC R317-15-6.1.A.3.

C. <u>Proper Storage of Hazardous and Otherwise Deleterious Materials</u>. Project approval is conditioned on proper storage of hazardous and otherwise deleterious materials, and notification of any discharge of those materials, to assure that water quality and narrative standards are not violated. When projects are occurring in or around waterbodies, there is a chance for pollutants to inadvertently be spilled/discharged into waterbodies due to increased risk from project related activities (e.g. presence of machinery, onsite chemical and gas storage, improper waste storage, and failure to use proper BMPs). To prevent or reduce the possibility that hazardous and otherwise deleterious materials are inadvertently discharged into a waterbody, Project Proponents must not store, dispose of, or accumulated such materials adjacent to or in immediate vicinity of WOTUS unless adequate measures and controls are provided to ensure those materials would not enter waters of the State. If there is a discharge to WOTUS in the State of Utah, it must be immediately reported to the DEQ, as stated in Utah Code Section 19-5-114. An inadvertent discharge of pollutants can cause violations with Utah's Narrative Standards, which states "*It shall be unlawful, and a violation of these rules, for any person to discharge or place any waste or other substance in such a way as will be or may become offensive such as unnatural deposits, floating debris, oil, scum or other nuisances such as color, odor or taste; or cause conditions which produce undesirable aquatic life or which produce objectionable tastes in edible aquatic organisms; or result in concentrations or combinations of substances which produce undesirable physiological responses in desirable resident fish, or other desirable aquatic life, or undesirable human health effects, as determined by bioassay or other tests performed in accordance with standard procedures; or determined by biological assessments in Subsection R317-2-7.3*" UAC R317-3-7.2. Utah's rules promulgating standards of quality for waters of the State affirm "*it shall be unlawful and a violation of these rules for any person to discharge or place any wastes or other substances in such manner as may interfere with designated uses protected by assigned classes or to cause any of the applicable standards to be violated*" UAC R317-2-7.1.a. Discharges of pollutants, even inadvertently, could cause both a violation of applicable water quality standards and possibly interfere with a waterbodies designated uses.

Citation(s): Utah Code § 19-5-114, UAC R317-3-7.2, UAC R317-2-7.1.A, UAC R317-15-6.1., UAC R317-15-6.1.A.1., UAC R317-15-6.1A.2.

D. Protection of Impaired Waterbodies. Waters that are impaired and conjunctively on Utah's most up to date 303(d) list are not currently meeting their designated beneficial uses. According to Utah's Final 2024 Integrated Report [4] the waters identified as impaired are not meeting their designated beneficial uses because "the concentration of the pollutant- or several pollutants- exceeds numeric water quality criteria, or quantitative biological assessments indicate that the biological designated uses are not supported (Narrative water quality standards are violated)." Utah's antidegradation policy states "existing instream water uses shall be maintained and protected. No water quality degradation is allowable which would interfere with or become injurious to existing instream water uses." UAC R317-2-3.1. In order to ensure that proposed Project meets Utah's antidegradation policy and that discharges do not further degrade water quality the Project Proponent needs to be aware of the waterbodies assessment, more specifically if the

[4] https://deq.utah.gov/water-quality/2024-integrated-report

waterbody is impaired and listed on Utah's most current 303(d) list. If the potential discharge contains pollutants/parameters that the waterbody is listed as impaired for, the Project Proponent needs to take extra precautions to minimize and prevent discharges that could further degrade the waterbodies and prevent the waterbodies from meeting its beneficial and existing uses. Typical pollutants associated with USACE Section 404 permits (e.g. sediment), especially when a waterbody proposed for discharge is impaired, could cause applicable water quality standards to be violated, if appropriate measures are taken. As stated in UAC R317-15-6.1 the Director will ordinarily consider whether the proposed discharge "impairs the designated beneficial use classifications (e.g., aquatic life, drinking water, recreation) in Section R317-2-6" UAC R317-15-6.1.A.1., "exceeds water quality criteria, either narrative or numeric, in Section R317-2-7" UAC R317-15-6.1A.2. or "fails to meet the antidegradation (ADR) requirements of Section R317-2-7" UAC R317-15-6.1.A.3. when making a Certification decision.

E. <u>Dry Conditions to the Maximum Extent Practicable</u>. Project approval is conditioned on conducting activities under dry conditions to the maximum extent practicable to assure that water quality standards are not exceeded. Construction machinery used within a waterbody can cause significant impacts to water quality if adequate precautions are not taken. When it is unavoidable to operate construction machinery within the waterbody the Project Proponent should focus on minimizing the duration of the disturbance, turbidity increase, substrate disturbance, removal of riparian vegetation, and work shall be conducted in the "dry" to the maximum extent practicable. Minimizing the duration of impact reduces the chance that the impacts will accumulate and cause significant impacts to water quality. Minimizing turbidity increases is important because the State of Utah has numeric water quality criteria for turbidity in certain use designations, which could be violated if the Project Proponent does not take proper steps to minimize the increases. Water quality criteria for turbidity will be violated if there is an increase of 10 NTUs in waterbodies with designated uses related to recreation and if there is an increase of 10 NTUs (class 3A and 3B) or 15 NTUs (class 3C and 3D) in waterbodies with aquatic wildlife designated uses. UAC R317-2-14.1 and UAC R317-2-14.2. Conducting work in the "dry" to the maximum extent practicable will help reduce the risk of the numeric criteria for turbidity to be exceeded, as well as reduce the risk of a significant sediment load being transported downstream. Discharges of sediment can not only violate numeric criteria, but also, risk violating Utah's narrative standard "*It shall be unlawful, and a violation of these rules, for any person to discharge or place any waste or other substance in such a way as will be or may become offensive such as unnatural deposits, floating debris, oil, scum or other nuisances such as color, odor or taste; or cause conditions which produce undesirable aquatic life or which produce objectionable tastes in edible aquatic organisms; or result in concentrations or combinations of substances which produce undesirable physiological responses in desirable resident fish, or other desirable aquatic life, or undesirable human health effects, as determined by bioassay or other tests performed in accordance with standard procedures; or determined by biological assessments in Subsection R317-2-7.3.*" UAC R317-2-7.2. Violations of numeric and narrative criteria could cause a waterbody not to meet its designated beneficial use and a transport of sediment downstream could prevent a downstream waterbody from meeting its designated beneficial uses. As required by Utah's antidegradation policy UAC R317-2-3.1 "*Existing instream water uses shall be maintained and protected. No water quality degradation is allowable which would interfere with or become injurious to existing instream water uses*". Additionally, "*All actions to control waste discharges under these rules shall be modified as necessary to protect downstream designated uses*" UAC R317-2-8. As stated in UAC R317-15-6.1 the Director will ordinarily consider whether the proposed discharge "*impairs the designated beneficial use classifications (e.g., aquatic life, drinking water, recreation) in Section R317-2-6*" UAC R317-15-6.1.A.1., "*exceeds water quality criteria, either narrative or numeric, in Section R317-2-7*" UAC R317-15-6.1A.2. or "*fails to meet the* *antidegradation (ADR) requirements of Section R317-2-7*" UAC R317-15-6.1.A.3 when making a certification decision.

Citation(s): UAC R317-2-3.5., UAC R317-2-7.1.A., UAC R317-2-14.1, UAC R317-2-14.2., UAC R317-2-7.1.a., UAC R317-2-7.2., UAC R317-2-3.1, UAC R317-2-8. , UAC R317-15-6.1, UAC R317-15-6.1.A.1, UAC R317-15-6.1A.2., UAC R317-15-6.1.A.3.

F. Notification to water supply operators and local health departments is a condition of Project approval for all projects in or immediately adjacent to WOTUS with assigned class 1C for domestic drinking water upstream two miles or less from any intake supply. As stated in Utah's antidegradation policy UAC R317-2-3.5.d "depending upon the locations of the discharge and its proximity to downstream drinking water diversions, additional treatment or more stringent effluent limits or additional monitoring, beyond that which may otherwise be required to meet minimum technology standards or in stream WQS [water quality standards], may be required by the Director in order to adequately protect public health and the environment. The additional treatment/effluent limits/monitoring which may be required will be determined by the Director after consultation with the Division of Drinking Water and the downstream drinking water users." UAC R317-2-3.5.d. These additional requirements are necessary to ensure that beneficial use class 1C is maintained in the waterbody proposed for discharge or in some cases, protection of the downstream waterbodies designated beneficial use, when classified as 1C.

Citation(s): UAC R317-2-3.5.d, UAC R317-2-7.1.a, UAC R317-2-8., UAC R317-15-6.1, UAC R317-15-6.1.A.1, UAC R317-15-6.1A.2., UAC R317-15-6.1.A.3

G. Vegetation Preservation and Reestablishment in Fisheries. Project approval is conditioned on avoiding native riparian vegetation removal that provides stream shading to the maximum extent practicable in or immediately adjacent to WOTUS used as fisheries in order to maintain existing beneficial use. Waterbodies with beneficial use class 3A (cold water fishery) or waterbodies with a blue ribbon fishery designation rely heavily on the available stream cover/shade to maintain designated beneficial uses. Riparian vegetation supplies necessary shade to stabilize water temperatures in streams. Removal of riparian vegetation, without reestablishment, could cause a waterbody not to maintain beneficial use 3A or its blue ribbon fishery designation. Utah's antidegradation policy states "*existing instream water uses shall be maintained and protected. No water quality degradation is allowable which would interfere with or become injurious to existing instream water uses*." UAC R317-2-3.1. Failure to minimize riparian vegetation removal and failure to reestablish riparian vegetation which results in the failure to maintain beneficial use class 3A would be considered a violation of Utah's rules promulgating standards of quality for waters of the State, more specifically Utah's antidegradation policy found at UAC R317-2-3. Additionally, the loss of riparian vegetation could cause a violation of the instream numeric criteria for temperature, which is listed as 20°C with a maximum temperature change of 2°C for beneficial use class 3A. UAC R317-2-14.2. If the temperature of the waterbody increases, there is a potential for instream water quality criteria for dissolved oxygen to be violated. Temperature and dissolved oxygen have an inverse relationship, where temperature increases then dissolved oxygen decreases, so an increase in temperature could cause a decrease in dissolved oxygen, and possibly a violation of the instream criteria for dissolved oxygen. The instream criteria for dissolved oxygen for beneficial use class 3A is a minimum of 8.0 milligrams per liter (mg/L) when early life stages are present and 4.0 mg/L when all other life stages are present. UAC R317-2-14.2. As stated in UAC R317-15-6.1 the Director will ordinarily consider whether the proposed discharge "*impairs the designated beneficial use classifications (e.g., aquatic life, drinking water, recreation) in Section R317-2-6*" UAC R317-15-6.1.A.1., "*exceeds water quality criteria, either narrative or numeric, in Section R317-2-7*" UAC R317-15-6.1A.2. or "*fails to meet the antidegradation (ADR) requirements of Section R317-2-7*" UAC R317-15-6.1.A.3 when making a certification decision.

Citation(s): UAC R317-2-3.1., UAC R317-2-3., UAC R317-2-14.2., UAC R317-2-14.2., UAC R317-15-6.1, UAC R317-15-6.1.A.1, UAC R317-15-6.1A.2., UAC R317-15-6.1.A.3.

H. UPDES Storm Water General Permit for Construction Activities (Permit No. UTRC00000). UAC R317-8-2.5, gives the Director authority to issue general permits to cover specific categories of discharges, including storm water and construction dewatering that is discharged to a surface water. According to UAC R317-8-3.9 (6)(d), construction activities that result in a land disturbance of equal to or greater than one acre, including clearing, grading, and excavation are "industrial activities" under UAC R317-8-3.9(1)(a) and are therefore required to obtain and comply with a UPDES Permit for storm water discharges. This only applies to projects that meet or exceed one acre of disturbance.

Citation(s): UAC R317-8-3.9(6)(d) and UAC R317-8-3.9(1)(a)

I. UPDES General Permit for Construction Dewatering (Permit No. UTG070000). UAC R317-8-2.5, gives the Director authority to issue general permits to cover specific categories of discharges, including storm water and construction dewatering that is discharged to a surface water. Under the authority granted by UAC R317-8-2.5, the Director issued the General Permit for Construction Dewatering and Hydrostatic Testing, UPDES Permit No. UTG070000 renewed and effective as of February 1, 2020. UPDES Permit No. UTG070000 applies to construction dewatering of uncontaminated groundwater or surface water sources due to construction activities, hydrostatic testing of pipelines or other fluids vessels, water used in disinfection of drinking water vessels and other similar discharges in the State of Utah that have no discharge of process wastewater. This only applies to projects that require dewatering and discharge to surface water.

Citation(s): UAC R317-8-2.5

VII. Denials

NWPs for Projects that involve dam maintenance/rehabilitation or reservoir dewatering are denied and must apply for individual certification from the Director because they have the potential to discharge massive amounts of sediment if not properly regulated and administered. As stated in justification VI.A., the DWQ has concerns with projects that have potential to discharge large quantities of sediment into waterbodies. Projects such as dam maintenance/rehabilitation or reservoir dewatering that involve potential release of large quantities of sediment, either as part of project activities or inadvertently, have potential for catastrophic impacts to water quality. For example, in August 2016, the Tibble Fork Dam had an unplanned release of approximately 8,700 cubic yards of sediment from the Tibble Fork Reservoir into the North Fork of the American Fork River, causing a fish kill of about 5,250 fish. Samples taken revealed sediment concentrations of heavy metals (arsenic, cadmium, lead, and Zinc) in excess of EPA Region 3 Freshwater Sediment Screening Values for aquatic life and human health-based concentration for lead. The project had been permitted under a USACE Section 404 NWP, but the DWQ was unaware of the project. If the DWQ had the opportunity to review the project prior to USACE NWP issuance, impacts may have been prevented or at least minimized by adding project-specific conditions or additional oversight to the project. To avoid future violations and catastrophic releases, the DWQ is requiring Individual Section 401 Certifications for these types of projects.

Citation(s): UAC R317-2-14.1, UAC R317-2-14.2., UAC R317-2-7.1.a., UAC R317-2-8. , UAC R317-15-6.1, UAC R317-15-6.1.A.1., UAC R317-15-6.1.A.2., UAC R317-15-6.1.A.3.

VIII. Disclaimers

A. The Project Proponent must acquire all necessary easements, access authorizations and permits to ensure they are able to implement the Project. This Section 401 Certification does not convey any property rights or exclusive privileges, nor does it authorize access or injury to private property.

B. This Section 401 Certification does not preclude the Project Proponent'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 project proponent from any liability or penalty, should violations to the permit terms and conditions or Federal or State Laws occur.

C. 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 Section 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.

IX. Public Notice and Comments

As Stated in UAC R317-15-5., this Certification decision is subject to a 30 public notice period. Per UAC R317-15-5 draft certification decisions are subject to a thirty (30) day public notice. After considering public comments, the Director may execute the Certification issuance, revise it, or abandon it.

A. Public Notice Dates: October 6, 2025 till November 5, 2025.
B. Public Notice Comments/Response: None received.
C. 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.

X. Water Quality Certification

The Utah DWQ certifies that if the Project Proponent adheres to the conditions outlined in this Certification and adheres to any USACE Section 404 NWPs Conditions, then the Project will comply with water quality requirements and applicable provisions of the CWA sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards).

John K. Mackey

________________________________ December 4, 2025

John K. Mackey, P.E., Director — Date

DWQ-2025-

Prime and Unique Farmlands/Farmlands of Statewide Importance

U. S. Department of Agriculture, Natural Resources Conservation Service
Consultation Letter and Impact Review

March 30, 2026

Terron Pickett
Area Resource Soil Scientist
USDA Natural Resources Conservation Service
125 South State Street
Salt Lake City, UT 84138-1100

RE: Proposed Summit County Service Area#3 Culinary Water System Improvement Project, Summit County, Utah

Mr. Pickett,

On behalf of the Utah Division of Drinking Water (DDW) with support from Rimrock Engineering and Development, Cardinal EC is seeking your agency's comments regarding the proposed Summit County Service Area #3 (SCSA#3) Crescent Junction Culinary Water System Improvement Project (Proposed Project). The Proposed Project will be funded by the Utah Drinking Water Board from the Federal State Revolving Fund (SRF) administered by DDW. The DDW, through the SRF, is providing funding for the Proposed Project as part of a program to assist local utility providers with much-needed infrastructure and infrastructure improvements to improve the quality of life for rural residents. As part of this funding, DDW is required to evaluate the occurrence of Natural Resources Conservation Service (NRCS) designated prime farmlands and farmlands of statewide importance, and if necessary, consult with NRCS directly, to ensure the agency is not undertaking, funding, permitting or authorizing actions that are likely to result in irreversible impacts to these soils.

SCSA#3 is in the process of performing an environmental review pursuant to the National Environmental Policy Act (NEPA) for the DDW in order to assess the potential environmental impacts of the Proposed Project in Summit County, Utah. As part of this environmental review process, SCSA#3 has completed a data review and completed field surveys to identify the presence of and potential impact to soils designated as prime farmlands or soils of statewide importance and to identify and quantify what, if any, impacts the Proposed Project would have on these soils.

Following a data review and field surveys completed in October and November 2025, Cardinal EC has identified that portions of the Proposed Project (~ 4.0 acres) occur on NRCS-designated soils (prime farmlands, soils of statewide importance, or prime farmlands if irrigated); however, much of this is associated with temporary disturbance from installation of the buried water lines within existing SCSA#3 easements and roads. It is Cardinal EC's findings that the Proposed Project would result in permanent impacts (~0.01 ac.) to prime farmlands or soils of statewide importance for construction of a new well and well house. Cardinal EC has concluded that these temporary and permanent impacts would be considered negligible because the Proposed Project largely occurs within a dispersed residential community, within existing roads and road easements, and entirely within areas where no active agricultural activity exists. It is Cardinal EC's request to seek NRCS's concurrence that the Proposed Project would result in a negligible impact to NRCS-designated soils, so as to be discounted or exempted.

Proposed Project

The Project is located approximately five miles north of Park City, Utah, in Township 1 South, Range 4 East in portions of section 9, 10, 15, and 16 (Attachment 1). The Survey Area includes the entire Project which includes portions of the existing SCSA#3 residential water infrastructure along existing roads and undeveloped private land. Its location is shown on Park City East, UT, and Park City West, UT U.S. Geological Survey (USGS) 7.5' quadrangle. The Survey Area includes approximately 17 acres including portions of the existing residential water infrastructure easements as well as areas where the proposed improvements would be located.

SCSA#3 has expressed interest in evaluating undeveloped areas adjacent to their existing infrastructure for expansion of their water supply system. While the final design of the Proposed Project and permitting are not complete, the expansion would entail construction within existing SCSA#3 easements and undeveloped lands. The Project could include, but is not limited to removal of vegetation, regrading, cut and fill, paving, and installation of facilities including:

- A new underground 750,000-gallon concrete storage tank;

- New storage tank access roadway;
- Approximately 8,800 feet of 6” to 10” buried waterlines;
- A new culinary water well and well house;
- System wide-fire flow improvements; and
- Well zone isolation and water chemistry study.

The Proposed Project will entail locating the drinking water system infrastructure upgrades adjacent to the existing SCSA#3 culinary water system infrastructure, on undeveloped land, and along existing roadways to maximize use of previously disturbed areas and easements within the adjacent community. Disturbance associated with replacement of existing or installation of new buried water line and temporary extra workspace would result in approximately 4.45 acres of temporary disturbance much of which is located within existing paved roadways and the existing SCSA#3 waterline easements. As proposed, Construction of the new below-ground water storage tank, well house, facilities parking, and service connections would result in disturbance to previously undisturbed areas supporting upland sagebrush pant communities. Approximately 0.21 acres would be permanently converted to above-ground facilities (access road, staging/parking areas, well house, and support infrastructure) and would remain disturbed for the life of the system. After construction of the Project is complete, the disturbed areas used for temporary extra workspace would be restored to the existing contour and use or reclaimed and reseeded to the extent practical.

During construction slow-moving machinery, vehicles, and workers would be restricted to the Proposed Project, shoulders of the roads, easements where existing SCSA#3 facilities are located, and new easements obtained for this Proposed Project. Work in the Proposed Project would be minimized to the extent practical to existing SCSA#3 easements, along roadways, and temporary extra workspace to facilitate construction and staging. Following installation of the facilities, all disturbed areas would be restored to previous use or reclaimed and construction equipment and workers would leave the area as no other ground disturbing activities would be required. Following construction, the new SCSA#3 facilities would be integrated into the existing residential water supply system. Ground disturbance following construction is anticipated if the facilities are damaged and will be limited to the areas immediately around the damaged facilities.

Soil analysis

Soils within the Proposed Project were evaluated using NRCS Web Soil Survey (NRCS 2026a) and list of soils designated as prime farmland or farmland of statewide importance (NRCS 2026b). Results of this analysis are presented in the table below and shown in Attachment 1.

Table of NRCS Soils Acreage with Temporary and Permanent Disturbance by the Proposed Project

Map Unit Symbol/Soil Name	Designation	Temporary Disturbance Acres	Permanent Disturbance Acres	Description
102 Ant Flat loam, 2-8 percent slopes	Prime Farmland if Irrigated	0.00	0.00	Existing Greenfield Well Site. No disturbance at this location.
		0.40	0.00	Beehive Water Line in road. Temporary disturbance associated with buried water pipeline and reclaimed entirely. 15% in roadway 85% on roadway easement.
		0.92	0.00	Whileaway Water Line in road. Temporary disturbance associated with buried water pipeline and reclaimed entirely. 100% on roadway.
		0.54	0.00	Crescent Water Line & Tank Overflow/Drain. Temporary disturbance associated with buried water pipeline and reclaimed entirely. New easement on previously undisturbed land.

Map Unit Symbol/Soil Name	Designation	Temporary Disturbance Acres	Permanent Disturbance Acres	Description
		0.01	0.00	Silver Bullet Tank. Temporary disturbance associated with construction of well house and well.
		~1.87	**0.00**	**Total Disturbance**
103 Ant Flat loam, 8 to 15 percent slopes	Farmland of Statewide Importance	0.45	0.00	Whileaway Water Line in road. Temporary disturbance associated with buried water pipeline and reclaimed entirely. 100% on roadway.
		0.30	0.01	Silver Bullet Tank Site Temporary extra work space for construction and reclaimed entirely. Permanent disturbance for construction of new well and well house facilities.
		~0.75	**~0.01**	**Total Disturbance**
106 Ayoub cobbly loam, 2 to 15 percent slopes	Not Prime Farmland	0.00	0.00	None in Proposed Project but soils are near and adjacent to Proposed Project.
107 Ayoub-Dunford-Melling complex, 15 – 30 percent slopes	Not Prime Farmland	0.21	0.00	Crescent Water Line & Tank Overflow/Drain. Temporary disturbance associated with buried water pipeline and reclaimed entirely. New easement on previously undisturbed land.
		0.45	0.20	Crescent Tank and Access Rd - Temporary extra work space for construction and reclaimed entirely. Permanent Disturbance on Tank Site, Parking Area, and Access Road. New easement on previously undisturbed land.
		~ 0.66	**~ 0.20**	**Total Disturbance**
158 Melling-Ayoub-Rock outcrop complex, 10 to 30 percent slopes	Not Prime Farmland	0.00	0.00	None in Proposed Project but near and adjacent to Proposed Project.
178 Wanship loam, 0-3 percent slopes	Farmland of Statewide Importance	1.32		Greenfield Water Line in road. Temporary disturbance associated with buried water pipeline reclaimed entirely. 15% in road 85% on road easement.
		~1.32		**Total Temporary Disturbance**
		~1.32	**0.00**	**Total Permeant Disturbance**

Results of this analysis identified four soils within the Survey Area; two additional soils were analyzed based on their proximity to the Survey Area. Of the soils identified through the NRCS review, three are NRCS-designated Prime Farmlands, Farmlands of Statewide Importance, or Prime Farmlands if Irrigated (NRCS 2026b). Disturbance within the Proposed Project includes temporary disturbance associated with water line installation and construction temporary extra workspace as well as permanent disturbance associated with construction of new facilities. Results of the field survey documented that none of the Proposed Project occurs within areas that are actively used for agricultural production because much of the Proposed Project occurs within existing roads and road easements of a residential community. Some portions of the Proposed Project would occur within previously undisturbed areas; however, much of these lands would be reclaimed entirely, and are similarly part of a residential setting which is not used in agricultural production.

Disturbance to NRCS-designated soils associated with water line installation and construction temporary extra work space would be temporary as construction would entail excavation and burial of water pipelines, all of which will be reclaimed to existing use. None of the NRCS-designated soils would be permanently removed from use or function during water line construction. Permanent disturbance to NRCS-designated soils includes approximately 0.01 ac. of permanent disturbance to Ant Flat loam, 8 to 15 percent, a Farmland of Statewide Importance, and would be associated with construction and operation of a new well and well house on the Silver Bullet Tank Site. The permanent disturbance to this soil would occur within an area adjacent to the existing SCSA#3 facilities within a moderately disturbed area dominated by remnant sagebrush communities and reclamation grass species. Given that the NRCS-designated soils within the Proposed Project are not currently used for agricultural crop or livestock production, within and existing residential community, and the likelihood of these soils becoming an actively used for agricultural crop or livestock production in the near future are remote at best, it is Cardinal EC's conclusion that the Proposed Project would have a negligible impact to NRCS-designated soils nor would the Proposed Project impact the use of these soils for future agricultural purposes.

I would greatly appreciate notification if NRCS does or does not have an interest in the Proposed Project, as well as any comments or concerns you may have within 30 days. Should you have any additional interest in the Proposed Project, I will provide you with additional information pursuant to NEPA as it becomes available. Please provide your notification of interest and any comments or concerns by email at aaron.james@cardinal-ec.com, or I can also be reached by telephone at 801-719-9132. If you prefer, you may also contact the DDW project manager Allyson Spevak by email at allysonspevak@utah.gov or by telephone at 801-536-4200.

Sincerely,

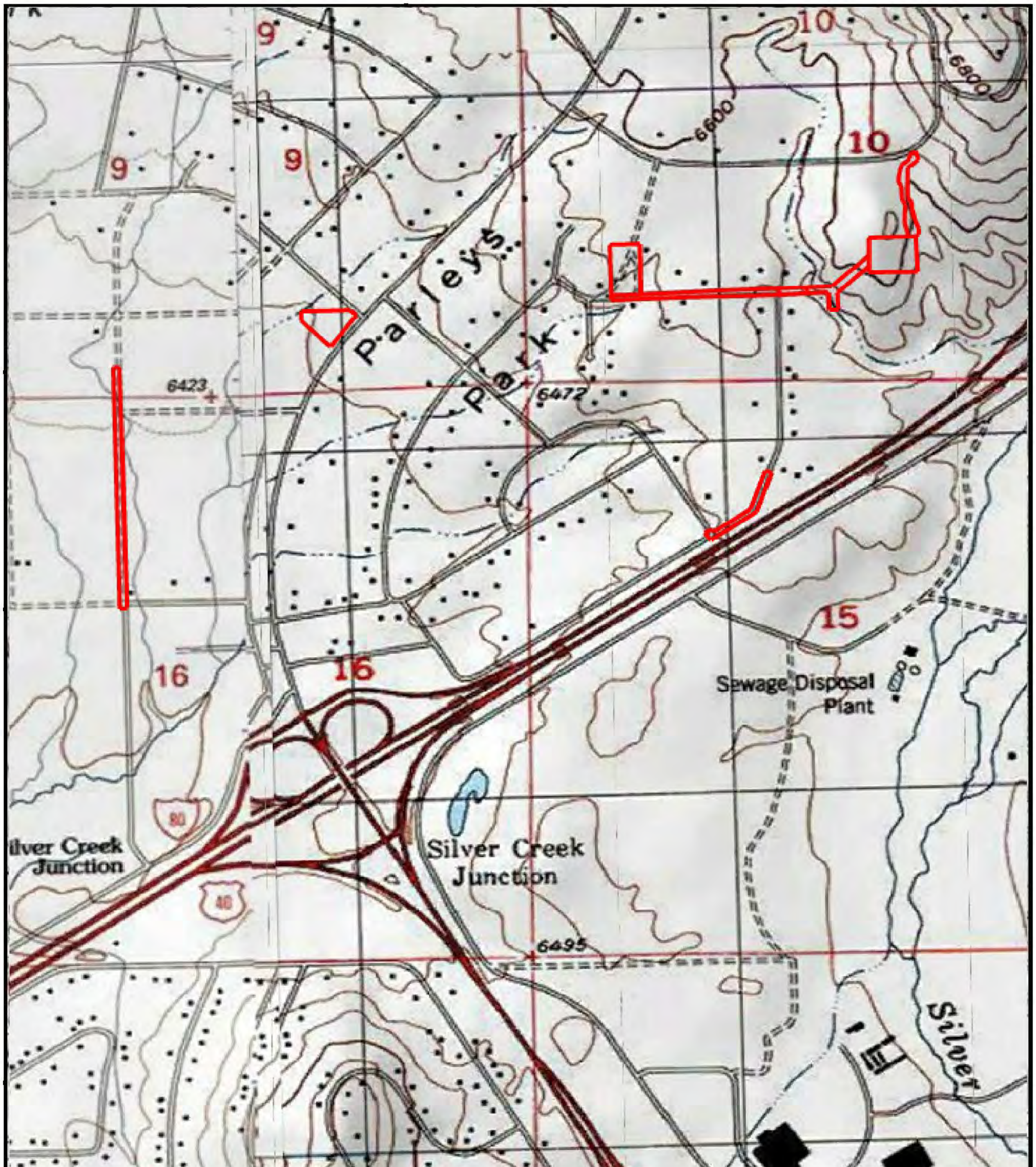
Aaron James

Aaron M. James
Principal
Cardinal EC

Attachment 1 – Project Overview Topographic, and Soil Map
Attachment 2 – Project Design Figures
Attachment 3 – Project Photographs
Attachment 4 – NRCS Soil Report

SCSA#3 Culinary Water Improvement Project

Attachment 1 – Project Overview Topographic and Soil Map



Legend

Project \ Survey Area

SCSA#3 Culinary Water Improvement Project

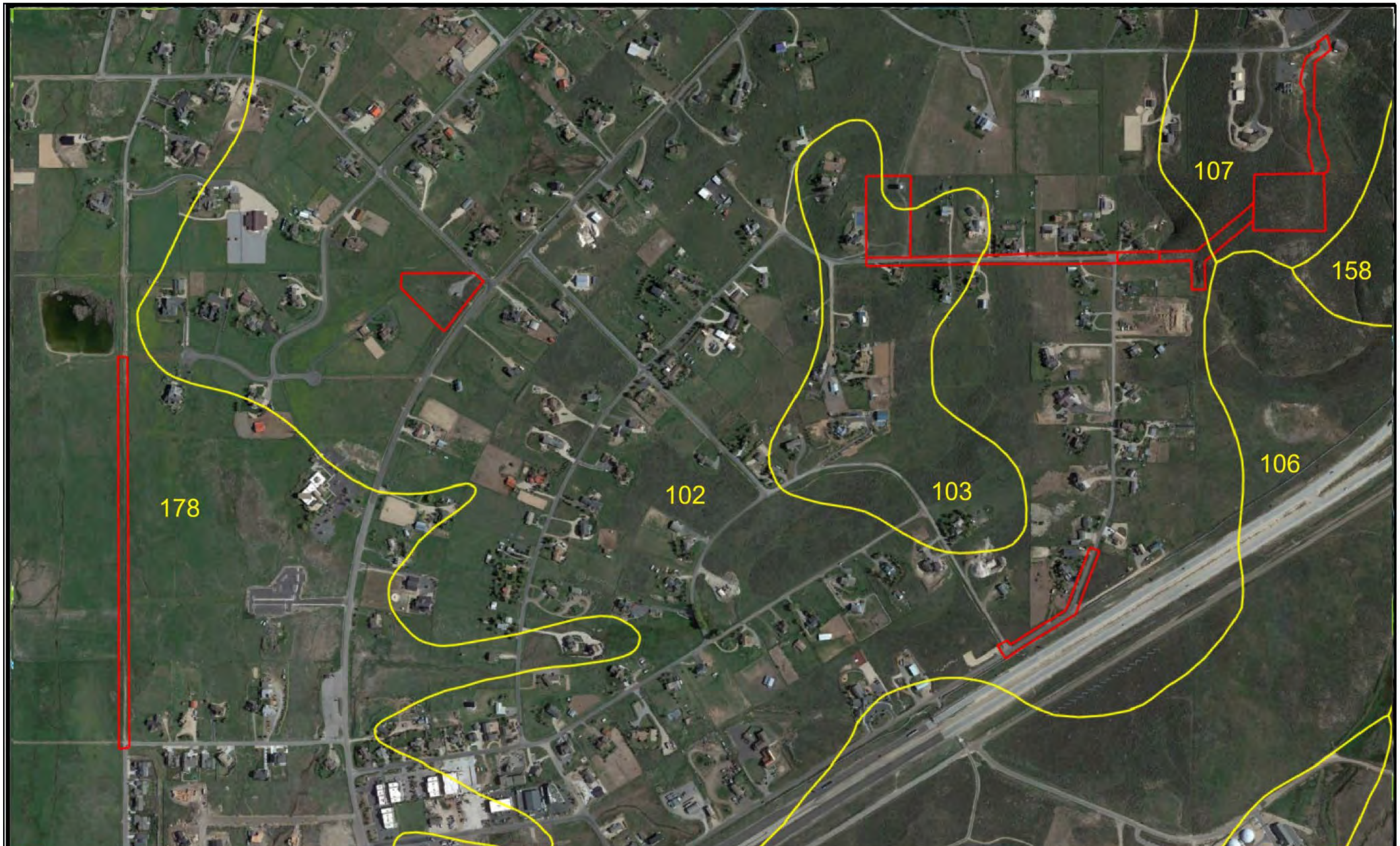
CARDINAL EC

0 1.0 mi

USGS Topographic 7.5" Map - Park City East / Park City West, UT

Summit County, UT
T1S R4E

N



Legend

Project / Survey Area

NRCS Soil Unit Boundaries

SCSA#3 Culinary Water Improvement Project

CARDINAL ECO

0

1,450 ft.

Summit County, UT
T1S R4E

N

SCSA#3 Culinary Water Improvement Project

Attachment 2 – Preliminary Design Concept Plan

2/20/2026

SHEET NOTES

SHEET LEGEND

PLAN REVISIONS

A. ADDED SILVER BULLET SHEET FOR REFERENCE

RIMROCK ENGINEERING & DEVELOPMENT

CAD TECH:	CRS
DESIGNER:	CRS
Q&A:	JNS

CALL BLUE STAKES PRIOR TO DIGGING

PROJECT NAME

SCSA#3 CULINARY WATER 2026

SHEET NAME

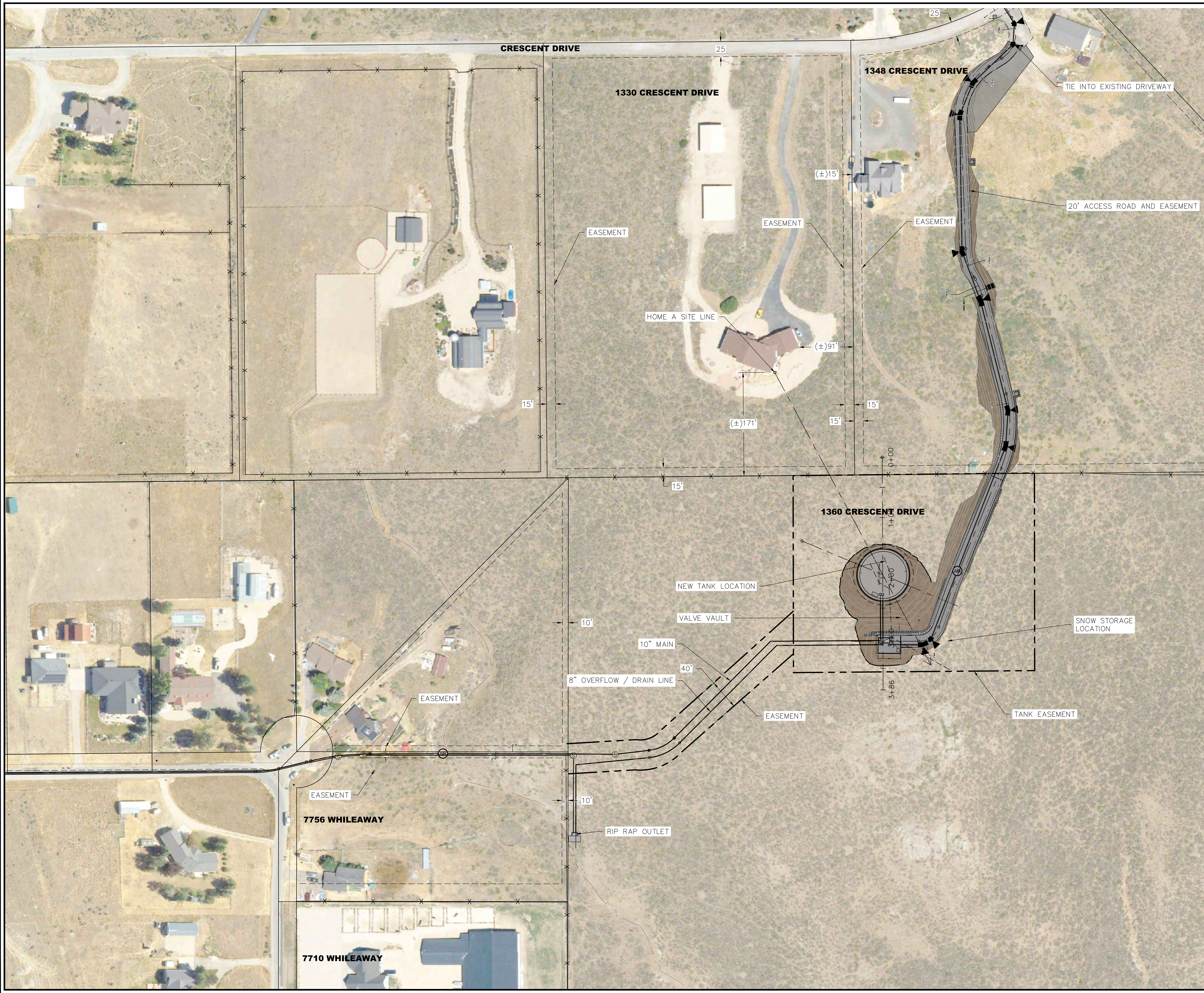
OVERALL INDEX SHEET

PLAN SUBMITTAL: DDW REVIEW

2/20/26

SHEET NUMBER

INDEX-1.1



Temporary Seeding Mix for Erosion Control	
Species	PLS*/ACRE
Western Wheatgrass	4
Bluebunch Wheatgrass	6
Intermediate Wheatgrass	4
Smooth Brome	3
Cicer Milkvetch	1
Sainfoin	2
Total	**20**
Permanent Seeding Mix for Erosion Control	
Species	PLS*/ACRE
Western Wheatgrass	5
Bluebunch Wheatgrass	7
Intermediate Wheatgrass	5
Smooth Brome	4
Cicer Milkvetch	2
Sainfoin	2
Arrowleaf Balsamroot	1
Mountain Sagebrush	2
Antelope Bitterbrush	2
Total	**30**
*pure live seed	

N
W E
S

SCALE: 1" =80'

0 80 160 Feet

SHEET NOTES

1. DISTURBED AREAS TO BE TEMPORARILY SEEDED IF CONSTRUCTION DOES NOT CONTINUE IN 30 DAYS. APPROVED TEMPORARY SEEDING MIX CAN BE FOUND ON DETAIL SHEET EROS-3.
2. INSTALL TEMPORARY EROSION CONTROL MATTING ON ALL DISTURBED SLOPES OF 3H:1V PRIOR TO RE-VEGETATION TO CONTROL EROSION.
3. PERMANENT RE-VEGETATION MUST TAKE PLACE DURING THE FOLLOWING WINDOW: FROM 4,000'-6000', SEPT. 15 TO DEC.1; FROM 6,000' AND ABOVE, SEPT. 15 TO NOV. 15 PERMANENT RE-VEGETATION WILL CONSIST OF APPROVED SEEDING MIX FOUND ON DETAIL SHEET EROS-3.
4. SEEDBED SHOULD BE PREPARED PRIOR TO SEEDING. INVASIVE AND NON-NATIVE COMPETITION SPECIES MUST BE ELIMINATED FROM SEED BED THROUGH APPROVED US OF HERBICIDES TO ENCOURAGE PROPER RE-SEEDING SUCCESS.
5. SEEDBED SHOULD BE FIRM AND MOIST, SEEDS SHOULD BE SOWN TO A DEPTH BETWEEN 1/4" AND 1/2" DEEP. SEEDING MUST TAKE PLACE DURING WINDOW IDENTIFIED ABOVE.

SHEET LEGEND

PLAN REVISIONS

A.

R E & D

RIMROCK ENGINEERING & DEVELOPMENT

CAD TECH:	CRS
DESIGNER:	CRS
Q&A:	JNS

CALL BLUE STAKES PRIOR TO DIGGING

PROJECT NAME

SCSA#3 CULINARY WATER 2026

SHEET NAME

CRESCENT SITE PLAN

PLAN SUBMITTAL: DDW REVIEW

2/21/26

SHEET NUMBER

CS1.0

SHEET NOTES

1.

SHEET LEGEND

PWR	EXIST POWER
G	EXIST GAS
	EXIST WATER
IRR	EXIST IRRIGATION
	EXIST SEWER
TEL	EXIST TELEPHONE
	EXIST STORM DRAIN
	EXIST FIBER OPTIC
	EXIST FENCE
	EXIST EDGE OF ROAD
	EXIST MAJOR CONTOUR
	EXIST MINOR CONTOUR
	EXIST DITCH FLOW LINE
	NEW EDGE OF ROAD
	NEW MAJOR CONTOUR
	NEW MINOR CONTOUR
	NEW DITCH FLOW LINE
	NEW STRIPING
	NEW SEPARATION STRIP
	PROPERTY BOUNDARY
	UTILITY EASEMENT

PLAN REVISIONS

A.

RIMROCK ENGINEERING & DEVELOPMENT

CAD TECH:	CRS
DESIGNER:	CRS
Q&A:	JNS

CALL BLUE STAKES PRIOR TO DIGGING

PROJECT NAME

SILVER BULLET WELL HOUSE

SHEET NAME

SITE PLAN

PLAN SUBMITTAL: CONCEPTUAL

SCALE:

	11"x17"	24"x36"
HORIZ.	1"=10'	1"=20'

3/23/26

SHEET NUMBER

SITE

SCSA#3 Culinary Water Improvement Project

Attachment 3 – Project Photographs

Photographs of SCSA#3 Culinary Water Proposed Project. October and November 2025 Field Survey

Greenfield Water Line Site. Proposed Project water line would be installed in elevated dirt road easement and reclaimed entirely. Occurs in Wanship loam, 0 to 3 percent, a NRCS soil designated Farmland of Statewide Importance. View North.

Greenfield Water Line Site. Proposed Project water line would be installed in elevated dirt road easement and reclaimed entirely. Occurs in Wanship loam, 0 to 3 percent, a NRCS soil designated Farmland of Statewide Importance. View South.

Greenfield Water Line Site. View North.

Greenfield Water Line Site. View North.

Photographs of SCSA#3 Culinary Water Proposed Project. October and November 2025 Field Survey


Greenfield Water Line Site. View South.


Greenfield Water Line Site. View North.


Greenfield Wel Site. No ground disturbance would occur at this site. Occurs in Ant Flat loam, 2 to 8 percent, a NRCS soil designated Prime Farmland if Irrigated. View North.


Greenfield Wel Site. No ground disturbance would occur at this site. Occurs in Ant Flat loam, 2 to 8 percent, a NRCS soil designated Prime Farmland if Irrigated. View South.

Photographs of SCSA#3 Culinary Water Proposed Project. October and November 2025 Field Survey

Silver Bullet Tank Site. Proposed Project includes ~0.01 ac. new well and well house at this location. Occurs in Ant Flat loam, 8 to 15 percent, a NRCS soil designated Prime Farmland. View North.

Silver Bullet Tank Site. Proposed Project includes new well and well house at this location. Occurs in Ant Flat loam, 8 to 15 percent, a NRCS soil designated Prime Farmland. View South.

Whileaway Water Line Site. Proposed Project water line would be installed entirely in road easement. Occurs in Ant Flat loam, 8 to 15 percent, a NRCS soil designated Prime Farmland and Ant Flat loam, 2 to 8 percent designated as Prime Farmland if Irrigated. View East.

Whileaway Water Line Site. Proposed Project water line would be installed entirely in road easement. Occurs in Ant Flat loam, 8 to 15 percent, a NRCS soil designated Prime Farmland and Ant Flat loam, 2 to 8 percent designated as Prime Farmland if Irrigated. View West.

Photographs of SCSA#3 Culinary Water Proposed Project. October and November 2025 Field Survey

Beehive Waterline Site. Proposed Project water line would be installed in road easement. Occurs in Ant Flat loam, 8 to 15 percent, a NRCS soil designated Prime Farmland. View West

Beehive Waterline Site. Proposed Project water line would be installed in road easement. Occurs in Ant Flat loam, 8 to 15 percent, a NRCS soil designated Prime Farmland. View West.

Crescent Water Line and Overflow/Drain Site. Proposed Project water lines would be installed in previously undisturbed easement, buried, reclaimed, and revegetated. Portions occur in Ant Flat loam, 8 to 15 percent, a NRCS soil designated Prime Farmland. View North.

Crescent Tank Site and Water Line. Proposed Project storage tank would be installed in previously undisturbed easement, much of which would be reclaimed, and revegetated. Parking area would permanently remove sagebrush vegetation community. Does not occur on NRCS-designated soils. View South.

Photographs of SCSA#3 Culinary Water Proposed Project. October and November 2025 Field Survey

Crescent Storage Tank & Access Road Site. Proposed Project tank access road would be installed in previously undisturbed easement which would permanently remove disturbed sagebrush vegetation community. Does not occur on NRCS-designated soils. View South.

Crescent Storage Tank & Access Road Site. Proposed Project tank access road would be installed in previously undisturbed easement which would permanently remove sagebrush vegetation community. Does not occur on NRCS-designated soils. View North.

SCSA#3 Culinary Water Improvement Project

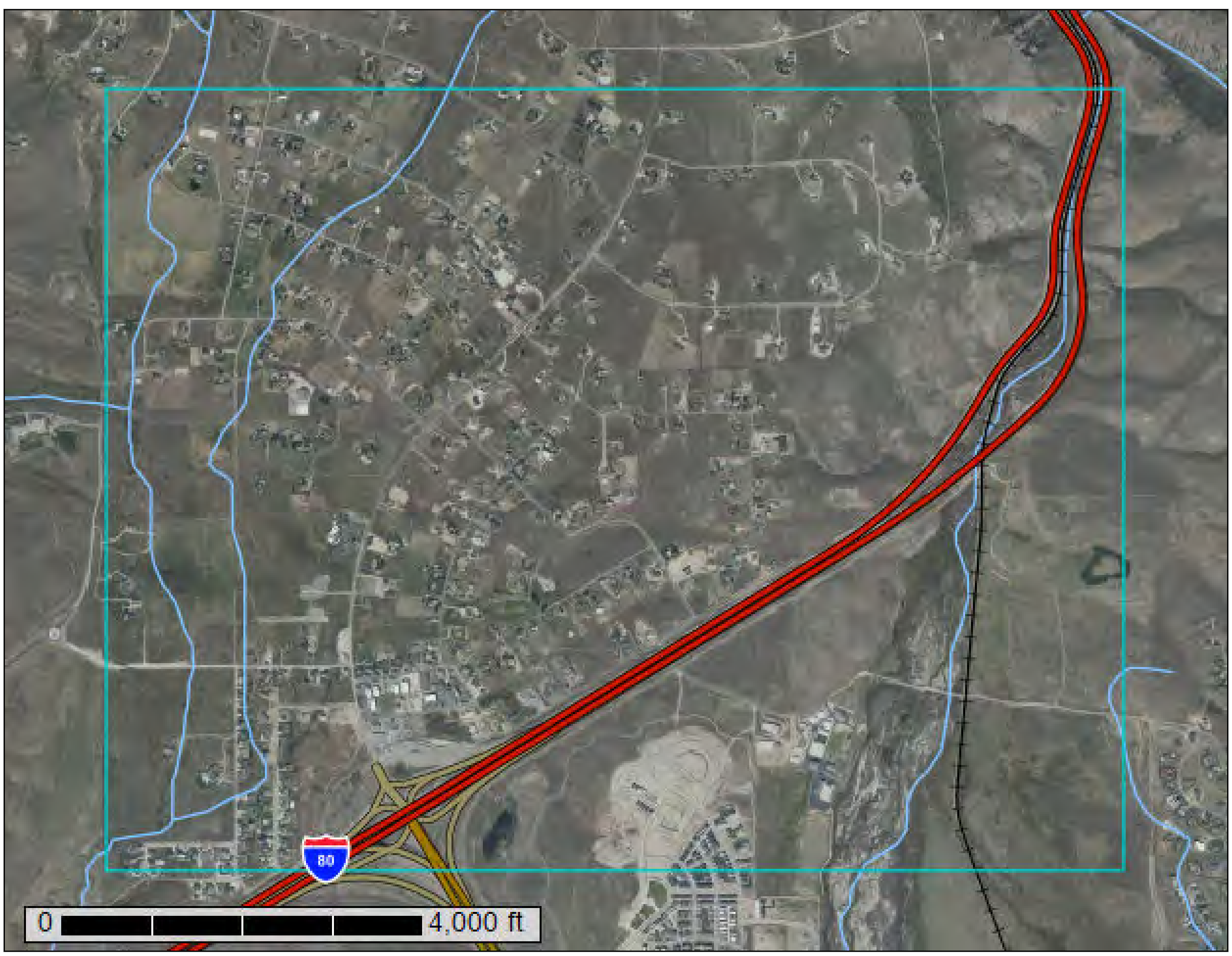
Attachment 4 – Soil Report

United States Department of Agriculture

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Summit Area, Utah, Parts of Summit, Salt Lake and Wasatch Counties



November 7, 2025

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

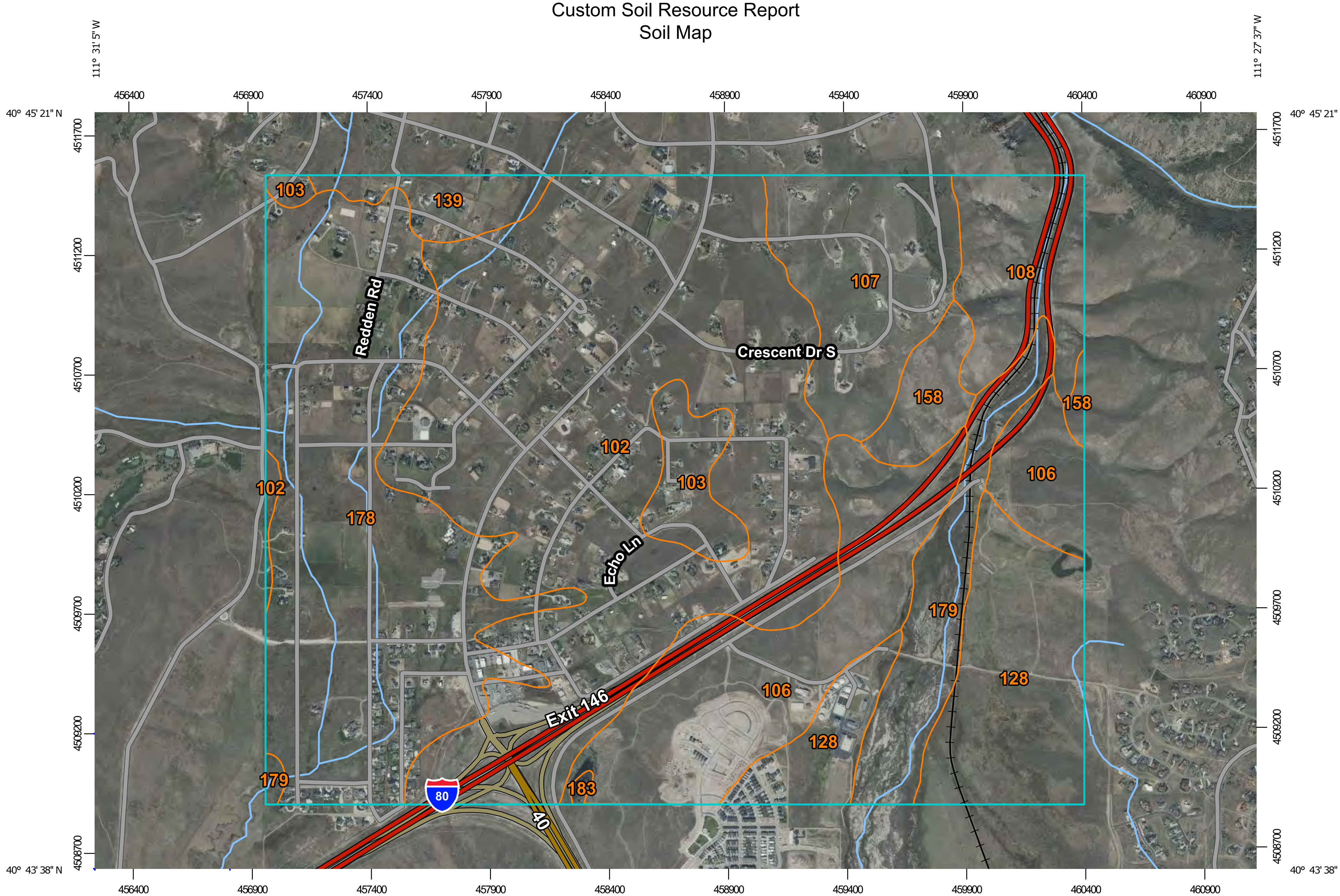
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

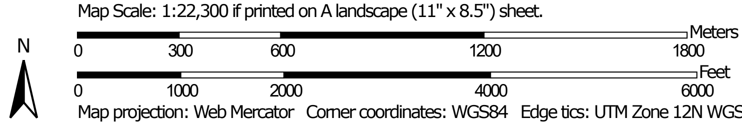
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Soil Map



Map Scale: 1:22,300 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Summit Area, Utah, Parts of Summit, Salt Lake and Wasatch Counties
Survey Area Data: Version 17, Aug 27, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 17, 2023—Sep 25, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
102	Ant Flat loam, 2 to 8 percent slopes	776.8	34.6%
103	Ant Flat loam, 8 to 15 percent slopes	54.2	2.4%
106	Ayoub cobbly loam, 2 to 15 percent slopes	276.7	12.3%
107	Ayoub-Dunford-Melling complex, 15 to 30 percent slopes	156.6	7.0%
108	Ayoub-Dunford-Melling complex, 30 to 60 percent slopes	104.0	4.6%
128	Fewkes gravelly loam, 2 to 8 percent slopes	212.4	9.5%
139	Harter gravelly loam, 2 to 15 percent slopes	41.6	1.9%
158	Melling-Ayoub-Rock outcrop complex, 10 to 30 percent slopes	47.2	2.1%
178	Wanship loam, 0 to 3 percent slopes	463.7	20.7%
179	Wanship-Kovich loams, 0 to 3 percent slopes	109.6	4.9%
183	Water	2.3	0.1%
Totals for Area of Interest		**2,245.1**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Summit Area, Utah, Parts of Summit, Salt Lake and Wasatch Counties

102—Ant Flat loam, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: k1w5
Elevation: 6,300 to 8,000 feet
Mean annual precipitation: 16 to 22 inches
Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 60 to 90 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Ant flat and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ant Flat

Setting

Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Slope alluvium derived from conglomerate, sandstone, and shale

Typical profile

A - 0 to 13 inches: loam
Bt1 - 13 to 19 inches: clay loam
Bt2 - 19 to 30 inches: clay
Bk1 - 30 to 45 inches: clay loam
Bk2 - 45 to 60 inches: clay loam

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.0 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Minor Components

Dastrup

Percent of map unit: 5 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA308UT - Upland Loam (basin big sagebrush)
Other vegetative classification: Upland Loam (Mountain Big Sagebrush) (047XA308UT_2)
Hydric soil rating: No

Manila

Percent of map unit: 5 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Fewkes

Percent of map unit: 3 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Henefer

Percent of map unit: 2 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R047XA432UT - Mountain Loam (oak)
Hydric soil rating: No

103—Ant Flat loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: k1wj
Elevation: 5,700 to 8,100 feet
Mean annual precipitation: 16 to 22 inches
Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 60 to 90 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Ant flat and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ant Flat

Setting

Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Slope alluvium derived from sandstone, shale, and conglomerate

Typical profile

A - 0 to 13 inches: loam
Bt1 - 13 to 19 inches: clay loam
Bt2 - 19 to 30 inches: clay
Bk1 - 30 to 45 inches: clay loam
Bk2 - 45 to 60 inches: clay loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.0 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Minor Components

Manila

Percent of map unit: 5 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Dastrup

Percent of map unit: 5 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA308UT - Upland Loam (basin big sagebrush)
Other vegetative classification: Upland Loam (Mountain Big Sagebrush) (047XA308UT_2)
Hydric soil rating: No

Fewkes

Percent of map unit: 3 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Henefer

Percent of map unit: 2 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R047XA432UT - Mountain Loam (oak)
Hydric soil rating: No

106—Ayoub cobbly loam, 2 to 15 percent slopes

Map Unit Setting

National map unit symbol: k1rt
Elevation: 5,800 to 8,000 feet
Mean annual precipitation: 16 to 22 inches
Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 60 to 90 days
Farmland classification: Not prime farmland

Map Unit Composition

Ayoub and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ayoub

Setting

Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Slope alluvium derived from andesite over residuum weathered from andesite

Typical profile

A - 0 to 6 inches: cobbly loam
Bt1 - 6 to 12 inches: gravelly clay loam
Bt2 - 12 to 18 inches: gravelly clay loam
Bt3 - 18 to 23 inches: gravelly clay loam
C - 23 to 35 inches: very cobbly loam
R - 35 to 45 inches: bedrock

Properties and qualities

Slope: 2 to 15 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Ecological site: R047XA406UT - Mountain Gravelly Loam (mountain big sagebrush)
Hydric soil rating: No

Minor Components

Ant flat

Percent of map unit: 5 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Dunford

Percent of map unit: 5 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA410UT - Mountain Gravelly Loam (oak)
Hydric soil rating: No

Melling

Percent of map unit: 5 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA446UT - Mountain Shallow Loam (mountain big sagebrush)
Hydric soil rating: No

107—Ayoub-Dunford-Melling complex, 15 to 30 percent slopes

Map Unit Setting

National map unit symbol: k1rv
Elevation: 5,800 to 7,800 feet
Mean annual precipitation: 16 to 22 inches

Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 60 to 90 days
Farmland classification: Not prime farmland

Map Unit Composition

Ayoub and similar soils: 45 percent
Dunford and similar soils: 20 percent
Melling and similar soils: 20 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ayoub

Setting

Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium and slope alluvium derived from andesite

Typical profile

A - 0 to 6 inches: cobbly loam
Bt1 - 6 to 12 inches: gravelly clay loam
Bt2 - 12 to 18 inches: gravelly clay loam
Bt3 - 18 to 23 inches: gravelly clay loam
C - 23 to 35 inches: very cobbly loam
R - 35 to 45 inches: bedrock

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: R047XA406UT - Mountain Gravelly Loam (mountain big sagebrush)
Hydric soil rating: No

Description of Dunford

Setting

Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium and slope alluvium derived from andesite

Typical profile

A - 0 to 10 inches: cobbly loam

Bt1 - 10 to 21 inches: gravelly clay loam
Bt2 - 21 to 36 inches: gravelly clay loam
R - 36 to 46 inches: bedrock

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: R047XA410UT - Mountain Gravelly Loam (oak)
Hydric soil rating: No

Description of Melling

Setting

Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium and/or slope alluvium

Typical profile

A - 0 to 6 inches: extremely stony loam
Bt - 6 to 19 inches: very cobbly clay loam
R - 19 to 29 inches: bedrock

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: 12 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R047XA446UT - Mountain Shallow Loam (mountain big sagebrush)
Hydric soil rating: No

Minor Components

Fewkes

Percent of map unit: 5 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Echocreek

Percent of map unit: 4 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R047XA310UT - Upland Loam (basin wildrye)
Hydric soil rating: No

Hades

Percent of map unit: 3 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA432UT - Mountain Loam (oak)
Hydric soil rating: No

Rock outcrop

Percent of map unit: 3 percent
Landform: Ridges, escarpments
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

108—Ayoub-Dunford-Melling complex, 30 to 60 percent slopes

Map Unit Setting

National map unit symbol: k1rw
Elevation: 5,800 to 7,800 feet
Mean annual precipitation: 16 to 22 inches
Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 60 to 90 days
Farmland classification: Not prime farmland

Map Unit Composition

Ayoub and similar soils: 45 percent
Dunford and similar soils: 20 percent

Melling and similar soils: 20 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ayoub

Setting

Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium derived from andesite

Typical profile

A - 0 to 6 inches: cobbly loam
Bt1 - 6 to 12 inches: gravelly clay loam
Bt2 - 12 to 18 inches: gravelly clay loam
Bt3 - 18 to 23 inches: gravelly clay loam
C - 23 to 35 inches: very cobbly loam
R - 35 to 45 inches: bedrock

Properties and qualities

Slope: 30 to 60 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Ecological site: R047XA406UT - Mountain Gravelly Loam (mountain big sagebrush)
Hydric soil rating: No

Description of Dunford

Setting

Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium derived from andesite

Typical profile

A - 0 to 10 inches: cobbly loam
Bt1 - 10 to 21 inches: gravelly clay loam
Bt2 - 21 to 36 inches: gravelly clay loam
R - 36 to 46 inches: bedrock

Properties and qualities

Slope: 30 to 60 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained

Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Ecological site: R047XA410UT - Mountain Gravelly Loam (oak)
Hydric soil rating: No

Description of Melling

Setting

Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium derived from andesite

Typical profile

A - 0 to 6 inches: extremely stony loam
Bt - 6 to 19 inches: very cobbly clay loam
R - 19 to 29 inches: bedrock

Properties and qualities

Slope: 30 to 60 percent
Depth to restrictive feature: 12 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: R047XA446UT - Mountain Shallow Loam (mountain big sagebrush)
Hydric soil rating: No

Minor Components

Fewkes

Percent of map unit: 5 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Echocreek

Percent of map unit: 4 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R047XA310UT - Upland Loam (basin wildrye)
Hydric soil rating: No

Hades

Percent of map unit: 3 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA432UT - Mountain Loam (oak)
Hydric soil rating: No

Rock outcrop

Percent of map unit: 3 percent
Landform: Ridges, escarpments
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

128—Fewkes gravelly loam, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: k1sq
Elevation: 5,600 to 6,800 feet
Mean annual precipitation: 16 to 22 inches
Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 60 to 90 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Fewkes and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Fewkes

Setting

Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Slope alluvium derived from sandstone, quartzite and shale

Typical profile

A - 0 to 12 inches: gravelly loam
Bt1 - 12 to 17 inches: clay loam
Bt2 - 17 to 22 inches: clay loam
Btk1 - 22 to 28 inches: clay loam
Btk2 - 28 to 40 inches: clay loam
Bk1 - 40 to 50 inches: clay loam
Bk2 - 50 to 60 inches: clay loam

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Minor Components

Ant flat

Percent of map unit: 5 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Hades

Percent of map unit: 4 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA432UT - Mountain Loam (oak)
Hydric soil rating: No

Lucky star

Percent of map unit: 3 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: F047XA531UT - High Mountain Stony Loam (quaking aspen)
Hydric soil rating: No

Yeates hollow

Percent of map unit: 3 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA461UT - Mountain Stony Loam (mountain big sagebrush)
Hydric soil rating: No

139—Harter gravelly loam, 2 to 15 percent slopes

Map Unit Setting

National map unit symbol: k1t0
Elevation: 6,100 to 7,000 feet
Mean annual precipitation: 16 to 22 inches
Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 60 to 90 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Harter and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Harter

Setting

Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex

Typical profile

A1 - 0 to 5 inches: gravelly loam
A2 - 5 to 12 inches: gravelly loam
AB - 12 to 19 inches: gravelly loam
Bt1 - 19 to 24 inches: gravelly clay loam
Bt2 - 24 to 33 inches: gravelly clay
Bt3 - 33 to 60 inches: gravelly clay

Properties and qualities

Slope: 2 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Minor Components

Yeates hollow

Percent of map unit: 5 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA461UT - Mountain Stony Loam (mountain big sagebrush)
Hydric soil rating: No

Ant flat

Percent of map unit: 4 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA430UT - Mountain Loam (mountain big sagebrush)
Hydric soil rating: No

Henefer

Percent of map unit: 3 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R047XA432UT - Mountain Loam (oak)
Hydric soil rating: No

Snyderville

Percent of map unit: 3 percent
Landform: Outwash terraces, stream terraces
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA406UT - Mountain Gravelly Loam (mountain big sagebrush)
Hydric soil rating: No

158—Melling-Ayoub-Rock outcrop complex, 10 to 30 percent slopes

Map Unit Setting

National map unit symbol: k1tm
Elevation: 6,400 to 7,200 feet
Mean annual precipitation: 16 to 22 inches
Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 60 to 90 days

Farmland classification: Not prime farmland

Map Unit Composition

Melling and similar soils: 50 percent
Ayoub and similar soils: 30 percent
Rock outcrop: 10 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Melling

Setting

Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium derived from andesite over residuum weathered from andesite

Typical profile

A - 0 to 6 inches: extremely stony loam
Bt - 6 to 19 inches: very cobbly clay loam
R - 19 to 29 inches: bedrock

Properties and qualities

Slope: 10 to 30 percent
Depth to restrictive feature: 12 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R047XA446UT - Mountain Shallow Loam (mountain big sagebrush)
Hydric soil rating: No

Description of Ayoub

Setting

Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Colluvium derived from andesite and/or slope alluvium derived from andesite

Typical profile

A - 0 to 6 inches: cobbly loam
Bt1 - 6 to 12 inches: gravelly clay loam
Bt2 - 12 to 18 inches: gravelly clay loam
Bt3 - 18 to 23 inches: gravelly clay loam

C - 23 to 35 inches: very cobbly loam
R - 35 to 45 inches: bedrock

Properties and qualities

Slope: 10 to 30 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: R047XA406UT - Mountain Gravelly Loam (mountain big sagebrush)
Hydric soil rating: No

Description of Rock Outcrop

Setting

Landform: Ridges on mountain slopes, escarpments on mountain slopes

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Dunford

Percent of map unit: 5 percent
Landform: Mountain slopes
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA410UT - Mountain Gravelly Loam (oak)
Hydric soil rating: No

Echocreek

Percent of map unit: 5 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R047XA310UT - Upland Loam (basin wildrye)
Hydric soil rating: No

178—Wanship loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: k1v7
Elevation: 6,300 to 7,200 feet
Mean annual precipitation: 16 to 22 inches
Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 60 to 90 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Wanship and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wanship

Setting

Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from sandstone and conglomerate

Typical profile

A1 - 0 to 8 inches: loam
A2 - 8 to 14 inches: loam
A3 - 14 to 24 inches: loam
2C1 - 24 to 26 inches: extremely cobbly loamy sand
2C2 - 26 to 60 inches: extremely cobbly loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: About 20 to 30 inches
Frequency of flooding: Rare
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): 4w
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: B

Ecological site: R047XA004UT - Interzonal Cold Semi-wet Fresh Meadow (meadow sedge/tufted hairgrass)
Hydric soil rating: No

Minor Components

Kovich

Percent of map unit: 5 percent
Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R047XA008UT - Interzonal Wet Fresh Meadow (sedge)
Hydric soil rating: Yes

Snyderville

Percent of map unit: 5 percent
Landform: Stream terraces, outwash terraces
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA406UT - Mountain Gravelly Loam (mountain big sagebrush)
Hydric soil rating: No

179—Wanship-Kovich loams, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: k1v8
Elevation: 5,200 to 8,000 feet
Mean annual precipitation: 16 to 22 inches
Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 60 to 90 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Wanship and similar soils: 55 percent
Kovich and similar soils: 30 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wanship

Setting

Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from sandstone and conglomerate

Typical profile

A1 - 0 to 8 inches: loam
A2 - 8 to 14 inches: loam

A3 - 14 to 24 inches: loam
2C1 - 24 to 26 inches: extremely cobbly loamy sand
2C2 - 26 to 60 inches: extremely cobbly loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: About 20 to 30 inches
Frequency of flooding: Rare
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): 4w
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: B
Ecological site: R047XA004UT - Interzonal Cold Semi-wet Fresh Meadow (meadow sedge/tufted hairgrass)
Hydric soil rating: No

Description of Kovich

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Alluvium derived from sandstone, quartzite and shale

Typical profile

A1 - 0 to 9 inches: loam
A2 - 9 to 22 inches: clay loam
A3 - 22 to 29 inches: clay loam
2C - 29 to 44 inches: fine sandy loam
3C - 44 to 60 inches: very gravelly loamy fine sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.1 inches)

Interpretive groups

Land capability classification (irrigated): 6w
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: C/D
Ecological site: R047XA008UT - Interzonal Wet Fresh Meadow (sedge)
Hydric soil rating: Yes

Minor Components

Toddspan

Percent of map unit: 6 percent
Landform: Valley floors, flood plains
Down-slope shape: Linear
Across-slope shape: Convex, concave
Ecological site: R047XA008UT - Interzonal Wet Fresh Meadow (sedge)
Hydric soil rating: Yes

Snyderville

Percent of map unit: 5 percent
Landform: Outwash terraces, stream terraces
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA406UT - Mountain Gravelly Loam (mountain big sagebrush)
Hydric soil rating: No

Dastrup

Percent of map unit: 4 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R047XA308UT - Upland Loam (basin big sagebrush)
Other vegetative classification: Upland Loam (Mountain Big Sagebrush) (047XA308UT_2)
Hydric soil rating: No

183—Water

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

References

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United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

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Respectfully,

Aaron James

AARON M JAMES | PRINCIPAL

801.719.9132; aaron.james@cardinal-ec.com

On Tue, Mar 31, 2026 at 3:47 PM Pickett, Terron - FPAC-NRCS, UT <terron.pickett@usda.gov> wrote:

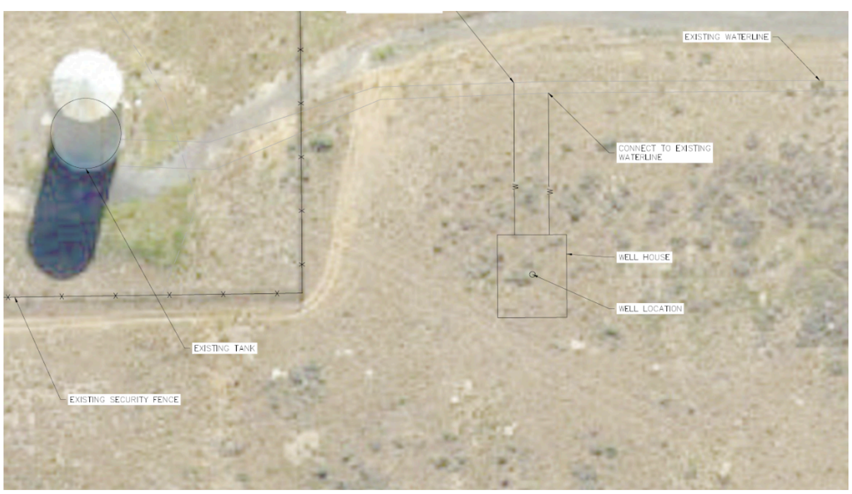
Aaron,

Thank you for the shape file.

Here is a copy of the 1006 with NRCS portions completed. Please return a completed form when signed, we keep a record each year of the acreage converted.

From: Aaron James <aaron.james@cardinal-ec.com>
Sent: Tuesday, March 31, 2026 10:50 AM
To: Pickett, Terron - FPAC-NRCS, UT <terron.pickett@usda.gov>
Subject: Re: [External Email]SCSA#3 NRCS Prime Farmland Review Request - UT Div of Drinking Water NEPA Action

The well site is depicted in the Silver Bullet Tank Site area south of the existing tank. It is shown in Attachment 2 - third map "Silver Bullet Well House Site Plan" - well house and well house location.



I'll have engineering submit a final footprint for the (~25'x25' - 625 sqftr. or 0.014 ac.) well house on the Silver Bullet Tank Site. I have attached a KMZ based onb the aerial and engineering maps, so while my version is not official it may help you get a jump on it unitl the final enginerring version comes through. I'll check on the easement question for you and get back.

Aaron

AARON M JAMES | PRINCIPAL

801.719.9132; aaron.james@cardinal-ec.com

On Tue, Mar 31, 2026 at 11:01 AM Pickett, Terron - FPAC-NRCS, UT <terron.pickett@usda.gov> wrote:

Hello Aaron,

As I read through the proposed actions, I see only the wellhouse as a reviewable portion of the project. I didn't read that it would be in an existing easement, if it is please correct me. All the buried pipeline as long as there is an existing reclamation plan for the surface are exempt. Also any permanent conversions that are not on prime or unique farmland are not reviewable.

If the above sounds correct as I understand the proposal, the only thing I would need additional would be a location of the wellhouse.

Call me if you have any questions

Terron Pickett

State Soil Scientist

(Located) Richfield AO

435 893-1358 Cell

From: Aaron James <aaron.james@cardinal-ec.com>
Sent: Monday, March 30, 2026 7:27 PM
To: Pickett, Terron - FPAC-NRCS, UT <terron.pickett@usda.gov>
Cc: Allyson Spevak <allysonspevak@utah.gov>; Jody Anagnos (Office Manager) <aclerk@summitcosa3ut.gov>; Chris Bullock <chris@scsa3.org>; Joe Santos <jsantos@re-n-d.com>
Subject: [External Email]SCSA#3 NRCS Prime Farmland Review Request - UT Div of Drinking Water NEPA Action

Mr. Pickett,

On behalf of the Utah Division of Drinking Water, I am submitting the attached correspondence letter seeking your agency's concurrence and comments for the proposed Summit County Service Area #3 (SCSA#3) Culinary Water upgrade Project. The Project includes replacement of ageing infrastructure and installation of new storage infrastructure for the existing SCSA#3 culinary water infrastructure.

Following a data review and field surveys completed in October and November 2025, we have identified that portions of the Proposed Project (~ 4.0 acres) occur on NRCS-designated soils (prime farmlands, soils of statewide importance, or prime farmlands if irrigated); however, much of this is associated with temporary disturbance from installation of the buried water lines within existing SCSA#3 easements and roads. It is our findings that the Proposed Project would result in permanent impacts (~0.01 ac.) to prime farmlands or soils of statewide importance for construction of a new well and well house. Cardinal EC has concluded that these temporary and permanent impacts would be considered negligible because the Proposed Project largely occurs within a dispersed residential community, within existing roads and road easements, and entirely within areas where no active agricultural activity exists. It is our request to seek NRCS's concurrence that the Proposed Project would result in a negligible impact to NRCS-designated soils, so as to be discounted or exempted.

Regards,

Aaron James

AARON M JAMES | PRINCIPAL

801.719.9132; aaron.james@cardinal-ec.com

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request March 31, 2026
Name of Project SCSA#3 - Culinary Water Upgrades	Federal Agency Involved UT DDW / EPA
Proposed Land Use well, well house, water lines, and stora	County and State Summit County, Utah
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 03/31/26 — Person Completing Form: Terron Pickett

Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☑ NO ☐	Acres Irrigated 25602	Average Farm Size 524
Major Crop(s) Forage (hay/haylage), all	Farmable Land In Govt. Jurisdiction Acres: 75633 % 11	Amount of Farmland As Defined in FPPA Acres: 75633 % 11	
Name of Land Evaluation System Used Irrigated Alfalfa Productivity Index	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS 03/31/26	

PART III *(To be completed by Federal Agency)*		Alternative Site Rating Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly		0.01			
B. Total Acres To Be Converted Indirectly		0			
C. Total Acres In Site		0.01			
PART IV *(To be completed by NRCS)* Land Evaluation Information					
A. Total Acres Prime And Unique Farmland		0.00			
B. Total Acres Statewide Important or Local Important Farmland		0.01			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		0.000			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		42.02			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)		11			
PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use 73%	(15)	11			
2. Perimeter In Non-urban Use 100%	(10)	10			
3. Percent Of Site Being Farmed 0%	(20)	0			
4. Protection Provided By State and Local Government 0%	(20)	0			
5. Distance From Urban Built-up Area 3,600 ft SW	(15)	5			
6. Distance To Urban Support Services 1,231 ft.	(15)	2			
7. Size Of Present Farm Unit Compared To Average <50%	(10)	0			
8. Creation Of Non-farmable Farmland <5%	(10)	0			
9. Availability Of Farm Support Services 25 to 49%	(5)	2			
10. On-Farm Investments 0 to 4%	(20)	0			
11. Effects Of Conversion On Farm Support Services 0 to 9%	(10)	0			
12. Compatibility With Existing Agricultural Use Somewhat Incompatible	(10)	5			
TOTAL SITE ASSESSMENT POINTS	160	35	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	11	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	35	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	46	0	0	0

Site Selected: Site A	Date Of Selection April 3, 2026	Was A Local Site Assessment Used? YES ☐ NO ☐

Reason For Selection:

Site is a very small emergency addition to existing infrastructure. Surrounding areas are largely dispersed residential lots >2ac. in size on rolling landscape which has been occupied as residential for the last 50 year. This area is Summit County is largely developed for residential use. No agricultural use

Name of Federal agency representative completing this form: Aaron M. James	Date: April 3, 2026

(See Instructions on reverse side) **Form AD-1006 (03-02)**

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.

Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s)of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map**,** or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)

Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.

Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.

Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.

Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

(For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.

2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.
Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \text{ X } 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.

Legend

Proposed Project Well House (0.01 ac.)

1.0 mi. Buffer Evaluation Area

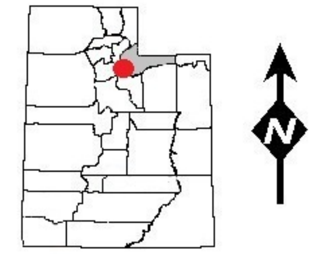
SCSA#3 Culinary Water Improvement Project

CARDINAL EC

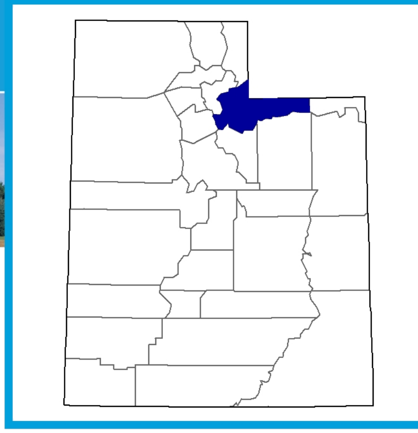
0 1.0 mi

Aerial Imagery of Proposed Project Area, Summit County, UT

Summit County, UT
T1S R4E



2022 CENSUS OF AGRICULTURE *County Profile*



Summit County
Utah

Total and Per Farm Overview, 2022 and change since 2017

	2022	% change since 2017
Number of farms	760	+21
Land in farms (acres)	398,230	+35
Average size of farm (acres)	524	+11
Total	($)	
Market value of products sold	29,626,000	+16
Government payments	1,680,000	+102
Farm-related income	2,962,000	-21
Total farm production expenses	31,675,000	+32
Net cash farm income	2,592,000	-58
Per farm average	($)	
Market value of products sold	38,981	-4
Government payments [a]	31,104	+16
Farm-related income [a]	14,449	-8
Total farm production expenses	41,678	+9
Net cash farm income	3,411	-65

1 Percent of state agriculture sales

Share of Sales by Type (%)

Crops	23
Livestock, poultry, and products	77

Land in Farms by Use (acres)

Cropland	30,048
Pastureland	328,365
Woodland	33,010
Other	6,807

Acres irrigated: 25,602
6% of land in farms

Land Use Practices (% of farms)

No till	8
Reduced till	5
Intensive till	4
Cover crop	4

Farms by Value of Sales

	Number	Percent of Total [b]
Less than $2,500	330	43
$2,500 to $4,999	73	10
$5,000 to $9,999	98	13
$10,000 to $24,999	84	11
$25,000 to $49,999	69	9
$50,000 to $99,999	50	7
$100,000 or more	56	7

Farms by Size

	Number	Percent of Total [b]
1 to 9 acres	205	27
10 to 49 acres	259	34
50 to 179 acres	130	17
180 to 499 acres	54	7
500 to 999 acres	38	5
1,000+ acres	74	10

2022 CENSUS OF AGRICULTURE County Profile

Market Value of Agricultural Products Sold

	Sales ($1,000)	Rank in State [c]	Counties Producing Item	Rank in U.S. [c]	Counties Producing Item
Total	**29,626**	**16**	**29**	**2,284**	**3,078**
Crops	**6,783**	**21**	**29**	**2,352**	**3,074**
Grains, oilseeds, dry beans, dry peas	-	-	27	-	2,917
Tobacco	-	-	-	-	267
Cotton and cottonseed	-	-	-	-	647
Vegetables, melons, potatoes, sweet potatoes	502	14	29	1,105	2,831
Fruits, tree nuts, berries	(D)	27	28	(D)	2,711
Nursery, greenhouse, floriculture, sod	132	18	26	1,429	2,660
Cultivated Christmas trees, short rotation woody crops	(D)	7	10	(D)	1,274
Other crops and hay	6,143	15	29	565	3,035
Livestock, poultry, and products	**22,843**	**15**	**29**	**1,654**	**3,076**
Poultry and eggs	49	20	29	1,647	3,027
Cattle and calves	14,851	11	29	1,013	3,047
Milk from cows	(D)	16	21	(D)	1,770
Hogs and pigs	505	6	27	626	2,814
Sheep, goats, wool, mohair, milk	2,976	4	29	52	2,967
Horses, ponies, mules, burros, donkeys	868	5	29	326	2,907
Aquaculture	(D)	6	15	(D)	1,190
Other animals and animal products	746	6	29	291	2,909

Producers [d] 1,522

Sex	
Male	1,018
Female	504
Age	
<35	134
35 – 64	823
65 and older	565
Race	
American Indian/Alaska Native	-
Asian	8
Black or African American	-
Native Hawaiian/Pacific Islander	3
White	1,507
More than one race	4
Other characteristics	
Hispanic, Latino, Spanish origin	15
With military service	88
New and beginning farmers	456

Percent of farms that:

Have internet access	81
Farm organically	-
Sell directly to consumers	4
Hire farm labor	19
Are family farms	93

Top Crops in Acres [e]

Forage (hay/haylage), all	18,239
Cultivated Christmas trees	(D)
Vegetables harvested, all	73
Onions, dry	(D)
Watermelons	(D)

Livestock Inventory (Dec 31, 2022)

Broilers and other meat-type chickens	42
Cattle and calves	22,238
Goats	798
Hogs and pigs	288
Horses and ponies	2,551
Layers	1,428
Pullets	88
Sheep and lambs	19,983
Turkeys	9

[a] Average per farm receiving. [b] May not add to 100% due to rounding. [c] Among counties whose rank can be displayed. [d] Data collected for a maximum of four producers per farm. [e] Crop commodity names may be shortened; see full names at www.nass.usda.gov/go/cropnames.pdf. [f] Position below the line does not indicate rank. (D) Withheld to avoid disclosing data for individual operations. (NA) Not available. (Z) Less than half of the unit shown. (-) Represents zero.

Gmail

Aaron James <aaron.james@cardinal-ec.com>

RE: [External Email]SCSA#3 NRCS Prime Farmland Review Request - UT Div of Drinking Water NEPA Action

1 message

Pickett, Terron - FPAC-NRCS, UT <terron.pickett@usda.gov> Fri, Apr 3, 2026 at 5:23 PM
To: Aaron James <aaron.james@cardinal-ec.com>

Aaron,

Thank you for the completed AD1006 this is the record we ask for to be returned, thank you for getting it back to me.

We don't write a letter if we submit the AD1006, that is the document that shows compliance with the FPPA process. In this case the project score, "LESA" is less than 160 and is therefore exempt.

Thank you again.

Terron Pickett

State Soil Scientist

(Located) Richfield AO

435 893-1358 Cell

From: Aaron James <aaron.james@cardinal-ec.com>
Sent: Friday, April 3, 2026 2:15 PM
To: Pickett, Terron - FPAC-NRCS, UT <terron.pickett@usda.gov>
Cc: Allyson Spevak <allysonspevak@utah.gov>
Subject: Re: [External Email]SCSA#3 NRCS Prime Farmland Review Request - UT Div of Drinking Water NEPA Action

Terron,

I have completed the AD1006 form you provided on behalf of DDW/EPA and have attached the documents listed below for your records. Part VI scored 35 for a Total Score for the SCSA#3 well house calculated a score of 46/260.

01_Completed AD 1006

02_Excel Worksheet used for AD 1006 Part VI Calculations (Calculations applied to value provided in the instructions)

03_Figure of evaluation area for completion of Part VI of AD 1006

04_2022 Summit Co UT Ag Census Data

05_Instructions for completion of AD 1006

Please review the attached materials and let me know if there are any submittals, rationalle, or calculations which do not meet NRCS requirements, and I will get the corrections/edis back to you for compliance. After your review, let us know what we need to do from this point forward. Will we receive a formal determination letter from you? If so, what is your schedule for doing so?

Floodplains

Utah Division of Emergency Management Consultation Letter

March 30, 2026

Brandon Brady, PE
County Engineer, Floodplain Administrator
Summit County Engineering Division
60 North Main
PO Box 128
Coalville, UT 84107

RE: Floodplain Review for the Proposed Summit County Service Area #3 Culinary Water System Improvement Project, Summit County, Utah.

Mr. Brady

On behalf of the Utah Division of Drinking Water (DDW) with support from Rimrock Engineering and Development, Cardinal EC is seeking your agency's comments regarding the proposed Summit County Service Area #3 (SCSA#3) Crescent Junction Culinary Water System Improvement Project (Proposed Project). The Proposed Project will be funded by the Utah Drinking Water Board from the Federal State Revolving Fund (SRF) administered by DDW. The DDW, through the SRF, is providing funding for the Proposed Project as part of a program to assist local utility providers with much-needed infrastructure and infrastructure improvements to improve the quality of life for rural residents. As part of this funding, DDW is required to evaluate the occurrence of Federal Emergency Management Agency (FEMA)-designated floodplains or Special Flood Hazard Areas and consult with the designated floodplain management agency (Summit County) directly to ensure the agency is not undertaking, funding, permitting or authorizing actions that are likely to result in permanent irreversible impacts to floodplains or constructed in a location vulnerable to flood damage.

SCSA#3 is in the process of performing an environmental review pursuant to the National Environmental Policy Act (NEPA) for the DDW in order to assess the potential environmental impacts of the Proposed Project in Summit County, Utah. As part of this environmental review process, SCSA#3 has completed a review and field surveys to identify the potential impacts to FEMA-designated floodplains or Special Flood Hazard Areas and quantify what, if any, impacts the Proposed Project would have on these resources or if the Proposed Project would be vulnerable to flood related damage as a result of being constructed within a designated floodplain or Special Flood Hazard Area.

Following a data review and field surveys competed in October and November 2025, it is Cardinal EC's conclusion that the Proposed Project would result in no permanent irreversible impacts to, or vulnerable to flood-related damage from, floodplains or Special Flood Hazard Areas. Results of the review determined that the Proposed Project is located within a Zone X (shaded) FEMA-designated floodplain which is outside the 100-year floodplain and represents 0.2 to 1% annual chance of annual flood. Additionally, portions of the Proposed Project located in the Zone X designation area include replacement or construction of new buried water line which would be located within an existing roadway and road easement (portions of which are paved and unimproved dirt road) and reclaimed entirely. It is Cardinal EC's request to seek concurrence of our conclusion that the Proposed Project would result in no permanent impacts to, or potentially vulnerable to floods within, designated floodplains or Special Flood Hazard Areas.

Proposed Project

The Project is located approximately five miles north of Park City, Utah, in Township 1 South, Range 4 East in portions of section 9, 10, 15, and 16 (Attachment 1). The Survey Area includes the entire Project which includes portions of the existing SCSA#3 residential water infrastructure along existing roads and undeveloped private land. Its location is shown on Park City East, UT, and Park City West, UT U.S. Geological Survey (USGS) 7.5' quadrangle. The Survey Area includes approximately 17 acres including portions of the existing residential water infrastructure easements as well as areas where the proposed improvements would be located.

SCSA#3 has expressed interest in evaluating undeveloped areas adjacent to their existing infrastructure for expansion of their water supply system. While the final design of the Proposed Project and permitting are not complete, the expansion would entail construction within existing SCSA#3 easements and undeveloped lands. The

Project could include, but is not limited to removal of vegetation, regrading, cut and fill, paving, and installation of facilities including:

- A new underground 750,000-gallon concrete storage tank;
- New storage tank access roadway;
- Approximately 8,800 feet of 6” to 10” buried waterlines;
- A new culinary water well and well house;
- System wide-fire flow improvements; and
- Well zone isolation and water chemistry study.

The Proposed Project will entail locating the drinking water system infrastructure upgrades adjacent to the existing SCSA#3 culinary water system infrastructure, on undeveloped land, and along existing roadways to maximize use of previously disturbed areas and easements within the adjacent community. Disturbance associated with replacement of existing or installation of new buried water line and temporary extra workspace would result in approximately 4.45 acres of temporary disturbance much of which is located within existing paved roadways and the existing SCSA#3 waterline easements. As proposed, Construction of the new below-ground water storage tank, well house, facilities parking, and service connections would result in disturbance to previously undisturbed areas supporting upland sagebrush pant communities. Approximately 0.21 acres would be permanently converted to above-ground facilities (access road, staging/parking areas, well house, and support infrastructure) and would remain disturbed for the life of the system. After construction of the Project is complete, the disturbed areas used for temporary extra workspace would be restored to the existing contour and use or reclaimed and reseeded to the extent practical.

During construction slow-moving machinery, vehicles, and workers would be restricted to the Proposed Project, shoulders of the roads, easements where existing SCSA#3 facilities are located, and new easements obtained for this Proposed Project. Work in the Proposed Project would be minimized to the extent practical to existing SCSA#3 easements, along roadways, and temporary extra workspace to facilitate construction and staging. Following installation of the facilities, all disturbed areas would be restored to previous use or reclaimed and construction equipment and workers would leave the area as no other ground disturbing activities would be required. Following construction, the new SCSA#3 facilities would be integrated into the existing residential water supply system. Ground disturbance following construction is anticipated if the facilities are damaged and will be limited to the areas immediately around the damaged facilities.

Floodplains

The Proposed Project occurs almost entirely on existing roadways and existing SCSA#3 water system infrastructure easements within the surrounding residential community (Attachment 1). Construction within previously undisturbed areas would occur for the new Crescent Storage Tank, Access Road, Crescent Water Line and Tank Overflow/Drain sites; however, these areas would be installed on an upland topographic rise, outside of any designated floodplains or Special Flood Hazard Areas (FEMA 2021, FEMA 2026). No other new infrastructure or new above-ground facilities would be installed within a floodplain or Special Flood Hazard Areas. The floodplain data review identified that approximately 1,920 feet of the Greenfield Water Line site occurs within the upper Kimball Creek drainage and is designated as a Zone X (shaded) flood hazard area (FEMA 2006, FFEMA 2026). Its location in relation to the FEMA Special Hazard Areas is shown in Attachment 1 and Attachment 3. The Greenfield Water Line is located entirely within the existing Greenfield roadway and elevated road easement, portions of which are either unimproved dirt road or paved. Construction and installation of water lines at this site would result in approximately 1.32 acres of short-term temporary disturbance, all of which would be reclaimed. Since construction would occur entirely within the existing roadway within and within existing SCSA#3 easements, construction would not result in any new or irreversibly impact any designated floodplains or Special Flood Hazard Areas. Additionally, construction and installation of the buried water lines in an existing elevated roadway would greatly reduce or eliminate the potential for flood-related damage to infrastructure within the Zone X areas.

During construction, the amount of open trenching for installation of the water line would be minimized to reduce the impacts of unforeseen precipitation and flooding within the floodplain. Contractors will be advised to trench, install, and rebury the pipeline routinely as work advances within the floodplain and that the amount of open trench be reduced in these areas particularly during periods of time when no work would occur. Following construction, all disturbance would be reclaimed to the existing use and topography such that the final elevation of the area will be unchanged. The project would not result in cumulative impacts to the Kimball Creek channel/floodplain and the carrying capacity of the Weber River/floodplain would be unchanged following construction. Given the project would occur entirely within the existing WMVR culinary waterline easements and all construction will be reclaimed to the existing topography, it is concluded that the proposed project would result in no changes to the elevation, physical characteristics, or function of the Special Flood Hazard Areas.

Please review the proposed project, demarcate or identify specific resource concerns, if any, in the proposed construction area on the enclosed figures and determine any impact. If your office concurs that the Proposed Project would not result in impacts to designated floodplains, please reply with your concurrence as soon as you are able. If you identify that a Floodplain Development Permit would be appropriate for this proposed project, please provide additional guidance on the permitting pathway that would be most suited to this undertaking. Please provide your notification of interest and any comments or concerns within 30 days by email at aaron.james@cardinal-ec.com, or I can also be reached by telephone at 801-719-9132. If you prefer, you may also contact the DDW project manager Allyson Spevak by email at allysonspevak@utah.gov or by telephone at 801-536-4200.

Sincerely,

Aaron James

Aaron M. James
Principal
Cardinal EC

Attachment 1 – Topographic and Aerial Map of Project
Attachment 2 – Preliminary Design Concept Plan
Attachment 3 – FEMA Panels
Attachment 4 – Photographs

References

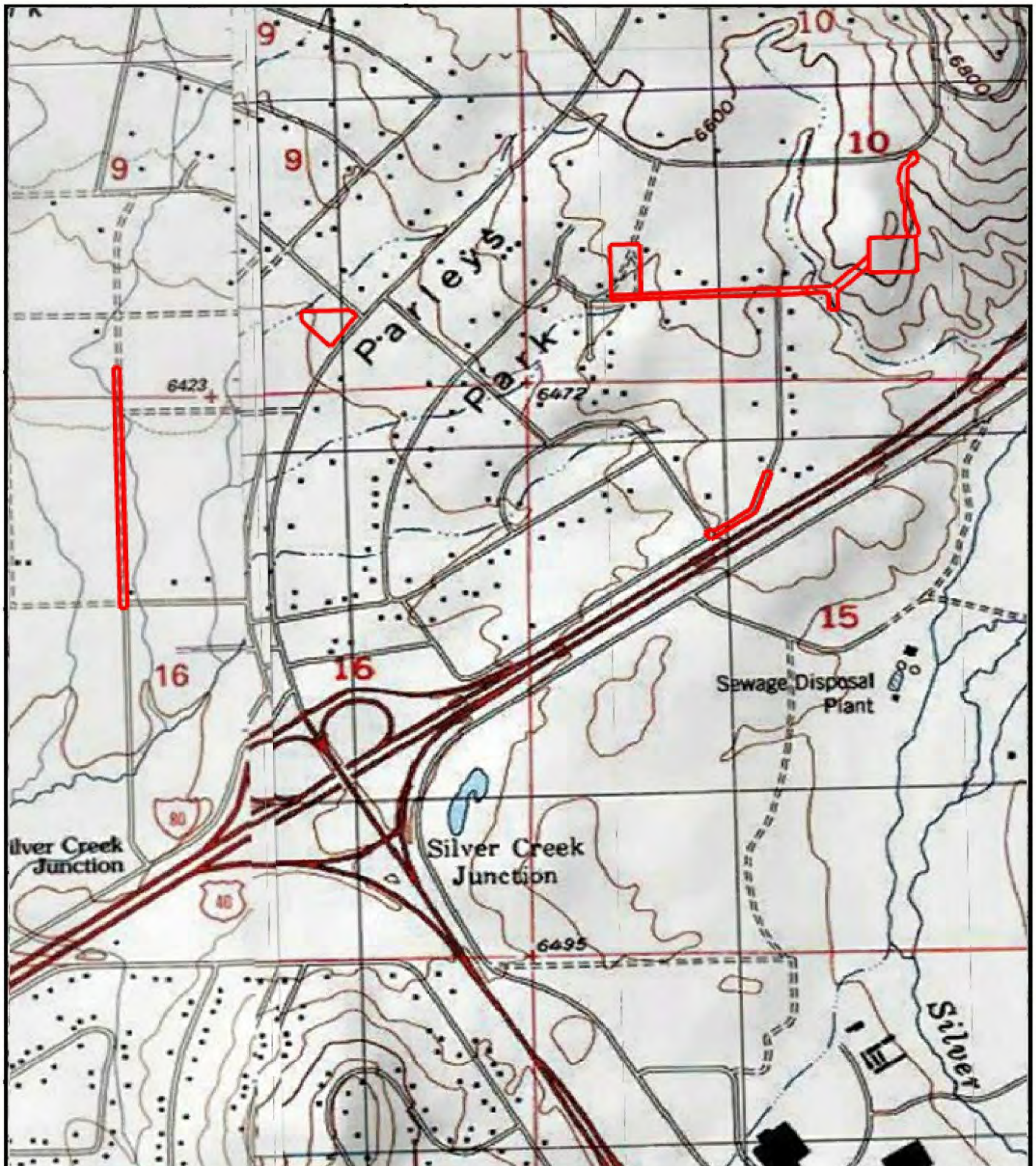
Federal Emergency Management Agency (FEMA). 2006. Flood Insurance Rate Map, Summit County, UT Panel 0907C, Map number 49043C0907C revised March 16, 2026. Accessed online at: https://www.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d 4879338b5529aa9cd

FEMA. 2021. Flood Insurance Rate Map, Summit County, UT Panel 0926D, Map number 049043C0926 revised March 23, 2021. Accessed online at: https://www.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d 4879338b5529aa9cd

FEMA 2026. National Flood Hazard Layer (NFHL) Viewer. 2026. GIS layers of Special Flood Hazard Areas.

SCSA#3 Culinary Water Improvement Project

Attachment 1 – Project Overview Topographic, Aerial Map, and FEMA FIRM data Figure



Legend

Project \ Survey Area

SCSA#3 Culinary Water Improvement Project

CARDINAL

0 — 1.0 mi

USGS Topographic 7.5" Map - Park City East / Park City West, UT

Summit County, UT
T1S R4E

N


Crescent Storage Tank &
Access Raod
Silver Bullet Tank
Whileaway Water Line
Crescent Water Line &
Tank Overflow/Drain
Greenfield Well
Beehive Water Line
Greenfield Water Line
Legend
Survey Area
SCSA#3 Culinary Water Improvement Project
CARDINAL
0
1,500 ft.
Summit County, UT
T1S R4E
N

Legend

Project / Survey Area

FEMA Designated Flood Zone

SCSA#3 Culinary Water Improvement Project

0 — 1,450 ft.

Summit County, UT
T1S R4E

SCSA#3 Culinary Water Improvement Project - Attachment

SCSA#3 Culinary Water Improvement Project

Attachment 2 – Preliminary Design Concept Plans

2/20/2026

SHEET NOTES

SHEET LEGEND

PLAN REVISIONS

A. ADDED SILVER BULLET SHEET FOR REFERENCE

RIMROCK ENGINEERING & DEVELOPMENT

R E & D

CAD TECH:	CRS
DESIGNER:	CRS
Q&A:	JNS

CALL BLUE STAKES PRIOR TO DIGGING

PROJECT NAME

SCSA#3 CULINARY WATER 2026

SHEET NAME

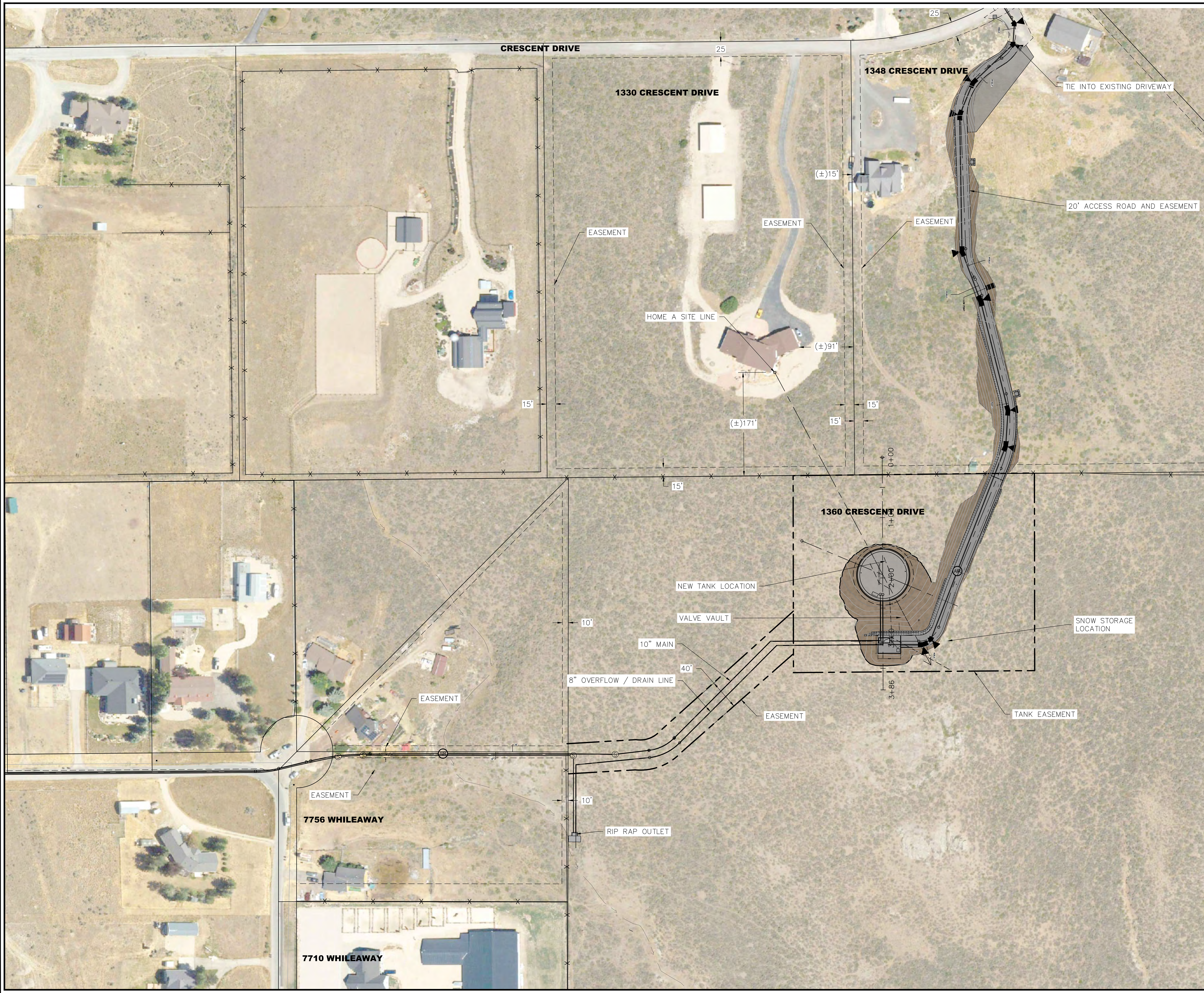
OVERALL INDEX SHEET

PLAN SUBMITTAL: DDW REVIEW

2/20/26

SHEET NUMBER

INDEX-1.1



Temporary Seeding Mix for Erosion Control	
Species	PLS*/ACRE
Western Wheatgrass	4
Bluebunch Wheatgrass	6
Intermediate Wheatgrass	4
Smooth Brome	3
Cicer Milkvetch	1
Sainfoin	2
Total	**20**
Permanent Seeding Mix for Erosion Control	
Species	PLS*/ACRE
Western Wheatgrass	5
Bluebunch Wheatgrass	7
Intermediate Wheatgrass	5
Smooth Brome	4
Cicer Milkvetch	2
Sainfoin	2
Arrowleaf Balsamroot	1
Mountain Sagebrush	2
Antelope Bitterbrush	2
Total	**30**
*pure live seed	

N
W E
S

SCALE: 1" =80'

0 80 160 Feet

SHEET NOTES

1. DISTURBED AREAS TO BE TEMPORARILY SEEDED IF CONSTRUCTION DOES NOT CONTINUE IN 30 DAYS. APPROVED TEMPORARY SEEDING MIX CAN BE FOUND ON DETAIL SHEET EROS-3.
2. INSTALL TEMPORARY EROSION CONTROL MATTING ON ALL DISTURBED SLOPES OF 3H:1V PRIOR TO RE-VEGETATION TO CONTROL EROSION.
3. PERMANENT RE-VEGETATION MUST TAKE PLACE DURING THE FOLLOWING WINDOW: FROM 4,000'-6000', SEPT. 15 TO DEC.1; FROM 6,000' AND ABOVE, SEPT. 15 TO NOV. 15 PERMANENT RE-VEGETATION WILL CONSIST OF APPROVED SEEDING MIX FOUND ON DETAIL SHEET EROS-3.
4. SEEDBED SHOULD BE PREPARED PRIOR TO SEEDING. INVASIVE AND NON-NATIVE COMPETITION SPECIES MUST BE ELIMINATED FROM SEED BED THROUGH APPROVED US OF HERBICIDES TO ENCOURAGE PROPER RE-SEEDING SUCCESS.
5. SEEDBED SHOULD BE FIRM AND MOIST, SEEDS SHOULD BE SOWN TO A DEPTH BETWEEN 1/4" AND 1/2" DEEP. SEEDING MUST TAKE PLACE DURING WINDOW IDENTIFIED ABOVE.

SHEET LEGEND

PLAN REVISIONS
A.

RIMROCK ENGINEERING & DEVELOPMENT

CAD TECH:	CRS
DESIGNER:	CRS
Q&A:	JNS

CALL BLUE STAKES PRIOR TO DIGGING

PROJECT NAME
SCSA#3 CULINARY WATER 2026

SHEET NAME
CRESCENT SITE PLAN

PLAN SUBMITTAL: DDW REVIEW

2/21/26

SHEET NUMBER
CS1.0

SHEET NOTES

1.

SHEET LEGEND

PWR	EXIST POWER
G	EXIST GAS
	EXIST WATER
IRR	EXIST IRRIGATION
	EXIST SEWER
TEL	EXIST TELEPHONE
	EXIST STORM DRAIN
	EXIST FIBER OPTIC
	EXIST FENCE
	EXIST EDGE OF ROAD
	EXIST MAJOR CONTOUR
	EXIST MINOR CONTOUR
	EXIST DITCH FLOW LINE
	NEW EDGE OF ROAD
	NEW MAJOR CONTOUR
	NEW MINOR CONTOUR
	NEW DITCH FLOW LINE
	NEW STRIPING
	NEW SEPARATION STRIP
	PROPERTY BOUNDARY
	UTILITY EASEMENT

PLAN REVISIONS

A.

RIMROCK ENGINEERING & DEVELOPMENT

CAD TECH:	CRS
DESIGNER:	CRS
Q&A:	JNS

CALL BLUE STAKES PRIOR TO DIGGING

PROJECT NAME

SILVER BULLET WELL HOUSE

SHEET NAME

SITE PLAN

PLAN SUBMITTAL: CONCEPTUAL

SCALE:

	11"x17"	24"x36"
HORIZ.	1"=10'	1"=20'

3/23/26

SHEET NUMBER

SITE

SCSA#3 Culinary Water Improvement Project

Attachment 3 – FEMA FIRM Panels

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevation** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevation (BFEs) shown on this map apply only landward of 0.0′ North American Vertical Datum (NAVD). Users of this FIRM should be aware that coastal flood elevations may also be provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this community. Elevations shown in the Summary of Stillwater Elevations table should be used for construction, and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures.** Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures in this jurisdiction.

The **projection** used in the preparation of this map is Universal Tranverse Mercator (UTM) zone 12. The **horizontal datum** is NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum.** For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

Spatial Reference System Division
National Geodetic Survey, NOAA
Silver Spring Metro Center
1315 East-West Highway
Silver Spring, Maryland 20910
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242,** or visit their website at www.ngs.noaa.gov.

Base map information shown on this FIRM was provided in digital format by Summit County Planning Division.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

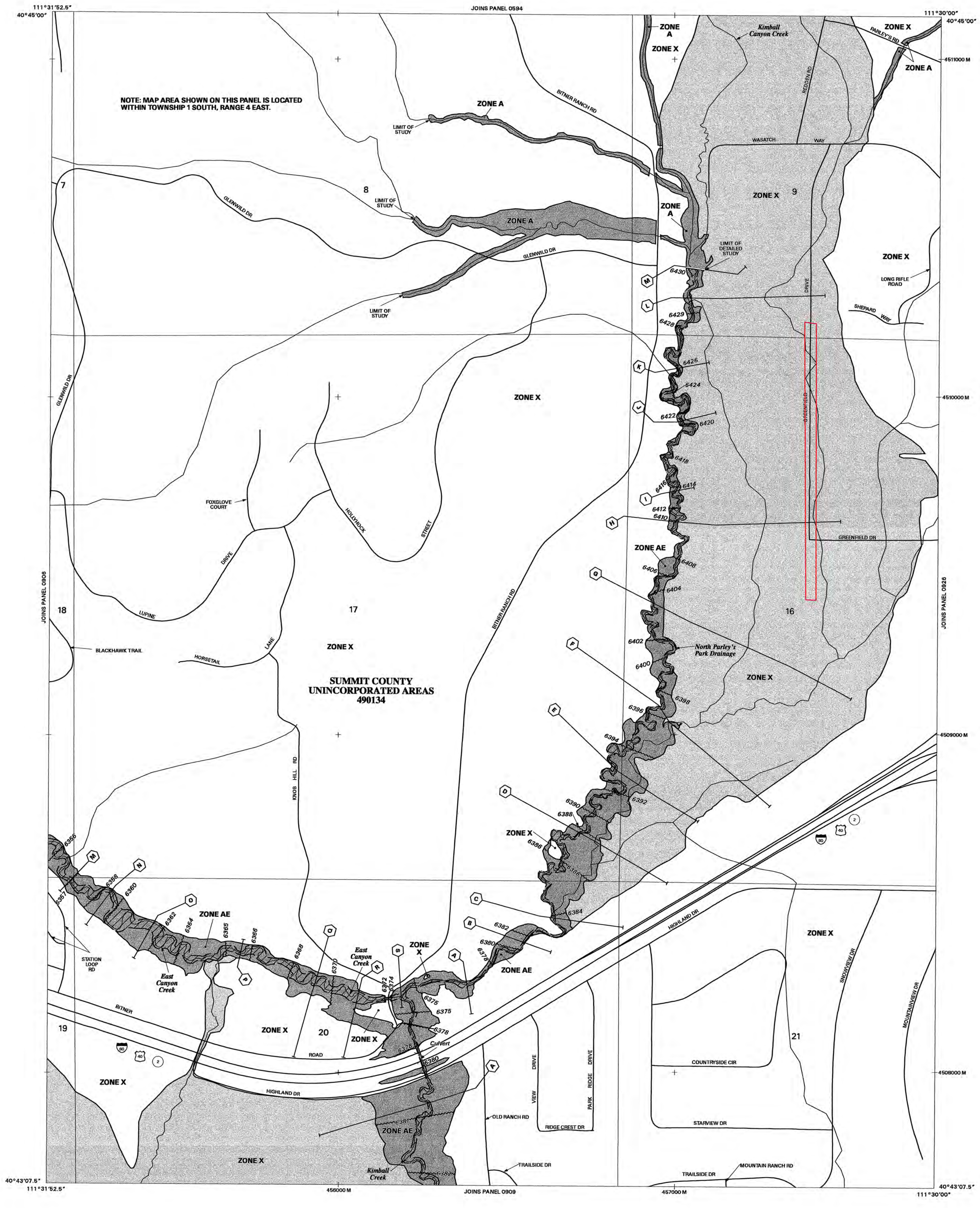
Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

An accompanying Flood Insurance Study report, Letters of Map Revision or Letters of Map Amendment revising portions of this panel, and digital versions of this PANEL may be available. Contact the **FEMA Map Service Center** at the following phone numbers and Internet address for infomation on all related products available from FEMA;

Phone: 800-358-9616
FAX: 800-358-9620
www.fema.gov/msc

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA-MAP** (1-877-336-2627) or visit the FEMA website at www.fema.gov.

This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report may reflect stream channel distances that differ from what is shown on this map.



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD EVENT

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water surface elevation of the 1% annual chance flood.

ZONE A	No base flood elevations determined.
ZONE AE	Base flood elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Area of special flood hazard formerly protected from the 1% annual chance flood event by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood event.
ZONE A99	Area to be protected from 1% annual chance flood event by a Federal flood protection system under construction; no base flood elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no base flood elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

Floodplain boundary

Floodway boundary

Zone D boundary

CBRS and OPA boundary

Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or velocities.

513 — Base Flood Elevation line and value; elevation in feet*

(EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

A — A Cross Section Line

23 - - - 23 Transect Line

97°07′30″, 32°22′30″ — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)

4276000M — 1000-meter Universal Transverse Mercator grid values, zone 12

600000 FT — 5000-foot grid ticks

DX5510× — Bench mark (see explanation in Notes to Users section of this FIRM panel).

• M1.5 — River Mile

MAP REPOSITORY
Refer to Repository Listing on Index Map

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
MARCH 16, 2006

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

Proposed Project

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at (800) 638-6620.

MAP SCALE 1″ = 500′

250 0 500 1000 FEET

150 0 150 300 METERS

NATIONAL FLOOD INSURANCE PROGRAM

NFIP

PANEL 0907C

FIRM
FLOOD INSURANCE RATE MAP
SUMMIT COUNTY,
UTAH
AND INCORPORATED AREAS

PANEL 907 OF 1250

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SUMMIT COUNTY, UNINCORPORATED AREAS	490134	0907	C

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER 49043C0907C

EFFECTIVE DATE: MARCH 16, 2006

Federal Emergency Management Agency

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) Zone 12 N. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at https://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at https://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from multiple sources. This information was compiled from the U.S. Geological Survey, 1989, Utah Automated Geographic Reference Center (AGRC), 2011, Summit County Information Systems, 2015, National Geodetic Survey, 2004, FEMA existing DFIRM data, 2010, USDA and Farm Service Agency Aerial Photography Field Office, 2011.

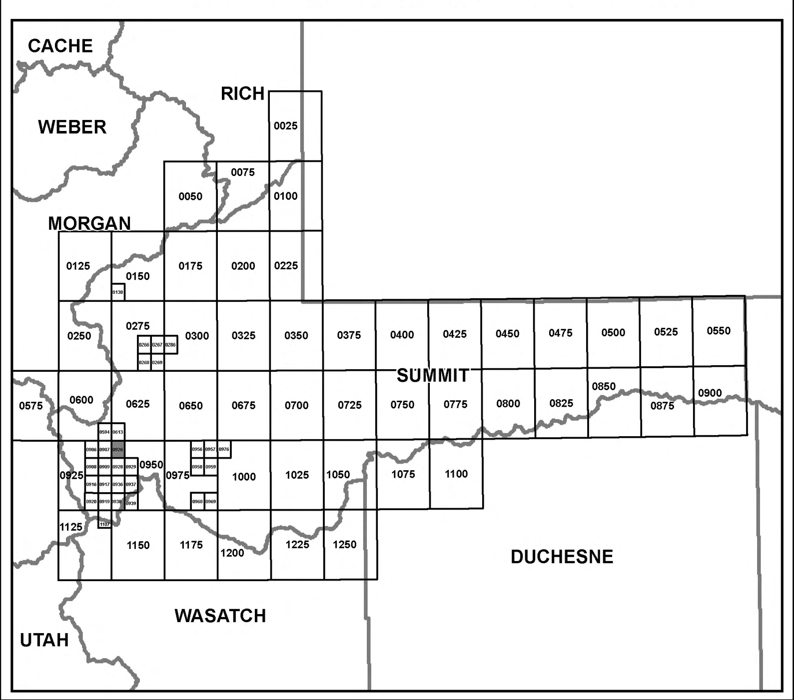
Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

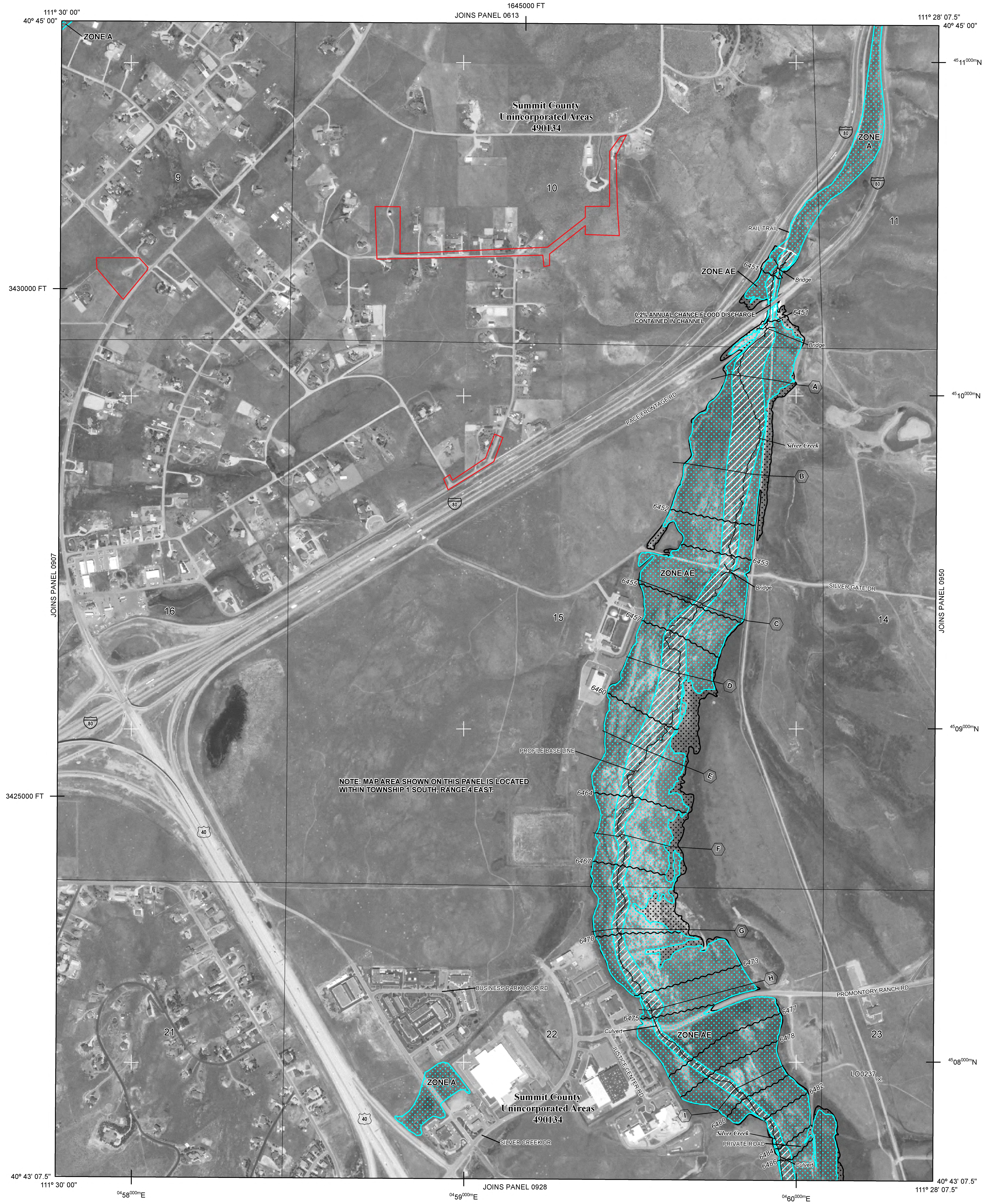
Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For Information on available products associated with this FIRM visit the **Map Service Center (MSC)** website at https://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have **questions about this map**, how to order products or the National Flood Insurance Program in general, please call the **FEMA Mapping and Insurance eXchange (FMIX)** at **1-877-FEMA-MAP** (1-877-336-2627) or visit the FEMA website at to https://www.fema.gov/national-flood-insurance-program

STATE OF UTAH FIRM PANEL LOCATOR DIAGRAM





LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D — Areas in which flood hazards are undetermined, but possible.

1% annual chance floodplain boundary
0.2% annual chance floodplain boundary
Floodway boundary
Zone D Boundary

Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

513 — Base Flood Elevation line and value; elevation in feet*
(EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

A — A Cross section line
23 - - - 23 Transect line
Culvert, Flume, Penstock or Aqueduct
Road or Railroad Bridge
Footbridge
97° 07' 30", 32° 22' 30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
4276000mE — 1000-meter Universal Transverse Mercator grid values, Zone 12N
600000 FT — 5000-foot grid ticks: Utah State Plane coordinate system, North Zone (FIPS 4301), Transverse Mercator Projection
DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)
● M1.5 — River Mile

Proposed Project

MAP REPOSITORIES
Refer to Map Repositories list on Map Index.

EFFECTIVE DATE OF COUNTYWIDE FLOOD
INSURANCE RATE MAP PANEL
MARCH 16, 2006

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
MARCH 23, 2021 - to update corporate limits, to change Base Flood Elevations and Special Flood Hazard Areas, to add Base Flood Elevations and Special Flood Hazard Areas, to add roads and road names, to reflect updated topographic information, and to incorporate previously issued Letters of Map Revision.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET

150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0926D

FIRM
FLOOD INSURANCE RATE MAP

**SUMMIT COUNTY,
UTAH
AND INCORPORATED AREAS**

PANEL 926 OF 1250
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SUMMIT COUNTY	490134	0926	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

**MAP NUMBER
49043C0926D**

**MAP REVISED
MARCH 23, 2021**

Federal Emergency Management Agency

SCSA#3 Culinary Water Improvement Project

Attachment 4 – Site Photographs

Photographs of SCSA#3 Culinary Water Proposed Project. October and November 2025 Field Survey

Greenfield Water Line Site. Proposed Project water line would be installed in elevated dirt road easement and reclaimed entirely. Site is located in Zone X floodplain area. View North.

Greenfield Water Line Site. Proposed Project waterline would be installed in elevated dirt road easement and reclaimed. Site is located in Zone X floodplain area. View South.

Greenfield Water Line Site. Site is located on existing dirt road in Zone X floodplain area. View South.

Greenfield Water Line Site. Site is located on existing dirt road in Zone X floodplain area. View North.

<table>
<tr><td colspan="2">Photographs of SCSA#3 Culinary Water Proposed Project. October and November 2025 Field Survey</td></tr>
<tr><td></td><td></td></tr>
<tr><td>Greenfield Water Line Site. Site is located on existing dirt road in Zone X floodplain area. View South.</td><td>Greenfield Water Line Site. Site is located on existing dirt road in Zone X floodplain area. View North.</td></tr>
<tr><td></td><td></td></tr>
<tr><td>Greenfield Water Line Site. Site is located on existing paved road in Zone X floodplain area. View North.</td><td>Greenfield Water Line Site. Site is located on existing paved road in Zone X floodplain area. View South.</td></tr>
</table>

Photographs of SCSA#3 Culinary Water Proposed Project. October and November 2025 Field Survey

Greenfield Well Site. Showing well house overflow/drain feature. No ground disturbance would occur at this location. View Southwest.

Greenfield Well Site. Showing NWI feature on northwest corner of Survey Area. No ground disturbance would occur at this location. View South.

Greenfield Well Site. Sagebrush vegetation on parcel. Proposed Project would not result in disturbance to this site. Existing well house pictured right. View West.

Greenfield Well Site. Proposed Project would not result in disturbance to this site. Existing well house and parking pictured.

Photographs of SCSA#3 Culinary Water Proposed Project. October and November 2025 Field Survey

Silver Bullet Tank Site. Disturbed sagebrush and reclamation grasses present. Proposed Project includes new well and well house at this approximate location. View North.

Silver Bullet Tank Site. Disturbed sagebrush and reclamation grasses present. Proposed Project includes new well and well house at this approximate location. View South.

Whileaway Water Line Site. Proposed Project water line would be installed entirely in road easement.

Whileaway Water Line Site. Proposed Project water line would be installed entirely in road easement.

Photographs of SCSA#3 Culinary Water Proposed Project. October and November 2025 Field Survey

Beehive Waterline Site. Proposed Project water line would be installed in road easement.

Beehive Waterline Site. Proposed Project water line would be installed in road easement.

Crescent Water Line and Overflow/Drain Site. Proposed Project water lines would be installed in previously undisturbed easement, buried, reclaimed, and revegetated. View North.

Crescent Water Line and Overflow/Drain Site. Proposed Project water lines would be installed in previously undisturbed easement, buried, reclaimed, and revegetated. View South.

Photographs of SCSA#3 Culinary Water Proposed Project. October and November 2025 Field Survey

Crescent Tank Site. Proposed Project storage tank would be installed in previously undisturbed easement, much of which would be reclaimed, and revegetated. Parking area would permanently remove sagebrush vegetation community. View South.

Crescent Tank Site. Proposed Project storage tank would be installed in previously undisturbed easement, much of which would be reclaimed, and revegetated. Parking area would permanently remove sagebrush vegetation community. View North.

Crescent Storage Tank & Access Road Site. Proposed Project tank access road would be installed in previously undisturbed easement which would permanently remove disturbed sagebrush vegetation community. View South.

Crescent Storage Tank & Access Road Site. Proposed Project tank access road would be installed in previously undisturbed easement which would permanently remove sagebrush vegetation community. View North.

Gmail

Aaron James <aaron.james@cardinal-ec.com>

RE: SCSA#3 Floodplains Review Request - UT Div of Drinking Water NEPA Action

1 message

Brandon C. Brady <bbrady@summitcountyutah.gov> Thu, Apr 2, 2026 at 11:52 AM
To: Aaron James <aaron.james@cardinal-ec.com>
Cc: Allyson Spevak <allysonspevak@utah.gov>, "Jody Anagnos (Office Manager)" <aclerk@summitcosa3ut.gov>, Chris Bullock <chris@scsa3.org>, Joe Santos <jsantos@re-n-d.com>, Amir Caus <acaus@summitcountyutah.gov>

Hi Aaron,

Thanks for sending this in. I have reviewed it and the good news is that you will not need a floodplain permit. It looks like the work is in the Zone X and we only regulate Zone A or the special flood hazard areas.

I talked to a planner, and they indicated that there is a CUP in for this project and that they are waiting on an updated plan set. Once we get that CUP and review it, this project will eventually need a construction permit through this department. Let me know if you have any questions.

Thanks,

Brandon Brady, PE

County Engineer

Summit County, Utah

Office: 435-336-3294

summitcountyutah.gov

From: Aaron James <aaron.james@cardinal-ec.com>
Sent: Monday, March 30, 2026 7:28 PM
To: Brandon C. Brady <bbrady@summitcountyutah.gov>
Cc: Allyson Spevak <allysonspevak@utah.gov>; Jody Anagnos (Office Manager) <aclerk@summitcosa3ut.gov>; Chris Bullock <chris@scsa3.org>; Joe Santos <jsantos@re-n-d.com>
Subject: SCSA#3 Floodplains Review Request - UT Div of Drinking Water NEPA Action

Mr. Brady,

On behalf of the Utah Division of Drinking Water, I am submitting the attached correspondence letter seeking your agency's concurrence and comments for the proposed Summit County Service Area #3 (SCSA#3) Culinary Water upgrade Project. The Project includes replacement of ageing infrastructure and installation of new storage infrastructure for the existing SCSA#3 culinary water infrastructure.

Following a data review and field surveys competed in October and November 2025, it is our conclusion that the Proposed Project would result in no permanent irreversible impacts to, or vulnerable to flood-related damage from, floodplains or Special Flood Hazard Areas. Results of the review determined that the Proposed Project is located within a Zone X (shaded) FEMA-designated floodplain which is outside the 100-year floodplain and represents 0.2 to 1% annual chance of annual flood. Additionally, portions of the Proposed Project located in the Zone X designation area include replacement or construction of new buried water line which would be located within an existing roadway and road easement (portions of which are paved and unimproved dirt road) and reclaimed entirely. It is our request to seek concurrence of our conclusion that the Proposed Project would result in no permanent impacts to, or potentially vulnerable to floods within, designated floodplains or Special Flood Hazard Areas.

Regards,

Aaron James

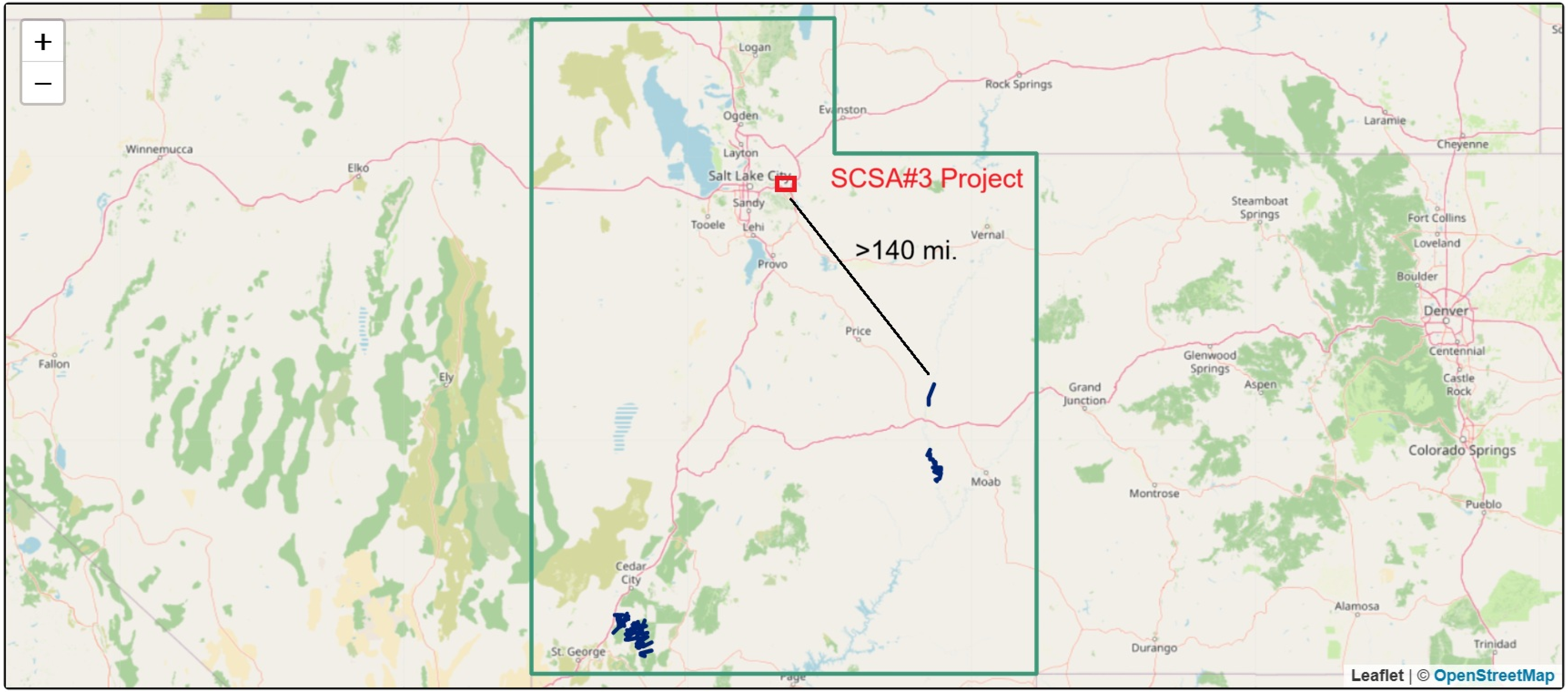
AARON M JAMES | PRINCIPAL

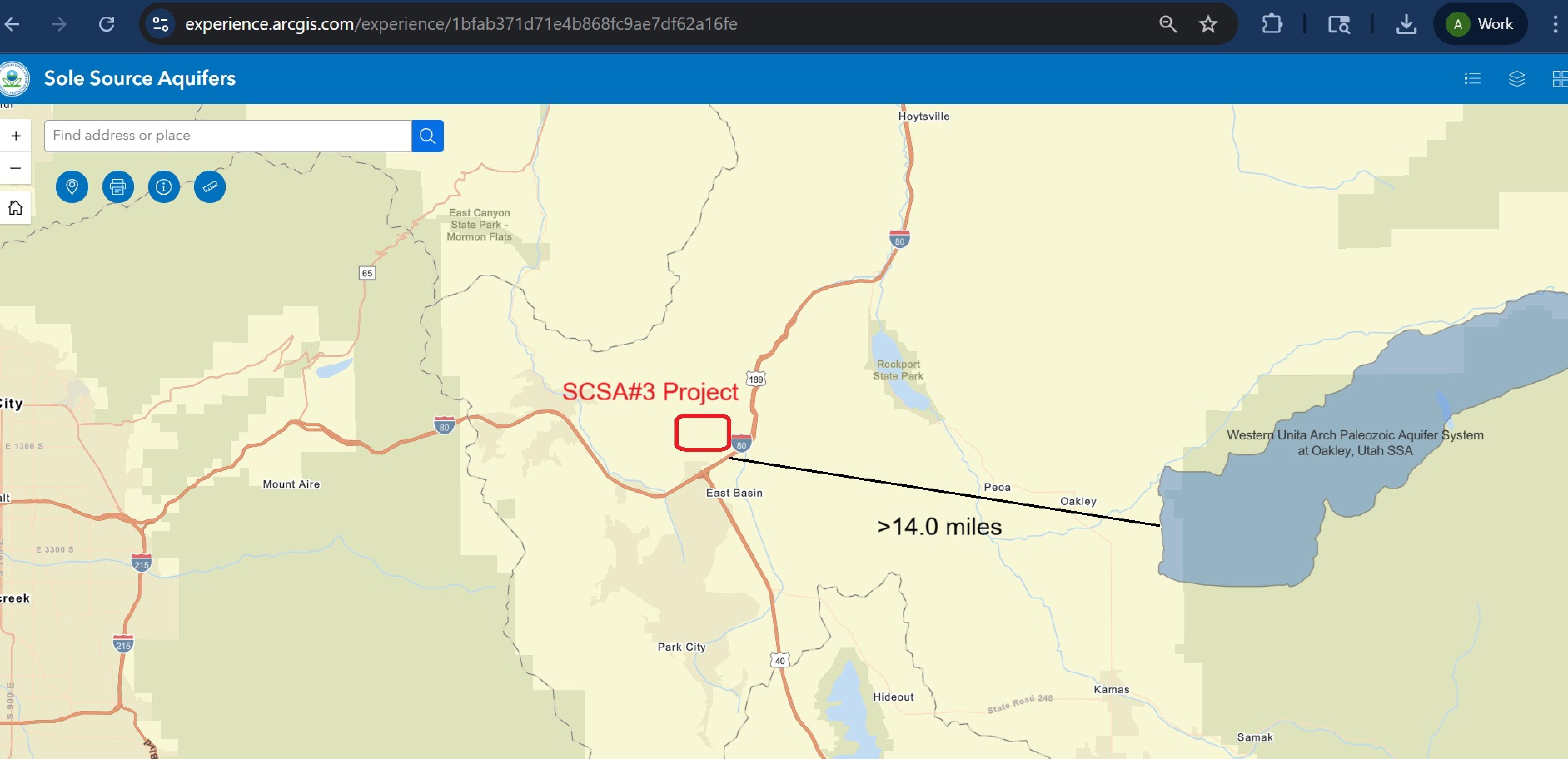
801.719.9132; aaron.james@cardinal-ec.com

Support Figures

Figures Used in Resource Impact Determination

Utah has approximately 81,899 miles of river, of which 232.3 miles are designated as wild and scenic—less than 2/10ths of 1% of the state's river miles.

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Work
Sole Source Aquifers
Find address or place
Hoytsville
East Canyon State Park - Mormon Flats
SCSA#3 Project
Rockport State Park
Western Unita Arch Paleozoic Aquifer System at Oakley, Utah SSA
Mount Aire
East Basin
Peoa
Oakley
>14.0 miles
Park City
Hideout
Kamas
State Road 248
Samak
E 1300 S
E 3300 S