

Appendix E: Waters of the U.S.

E.1 Introduction

The Central Utah Rail Project (CURP) proposes to construct and operate about 43 miles of new rail line and related rail facilities to connect shippers in the Sevier Valley to mainline rail service.

Currently, the Sevier Valley has no rail service, so shippers in the Sevier Valley transport commodities and products by truck. Regional roadways currently carry high levels of truck traffic. Coal trucks currently use Interstate 70 (I-70), Interstate 15 (I-15), U.S. Highway 89 (US 89), U.S. Highway 50 (US 50), and State Route 28 (SR 28) with about 1,500 trucks passing through downtown Salina each day at a rate of about one truck per minute. Currently, I-70 carries 750 trucks per day in each direction. Truck traffic runs in one direction on US 89, SR 28, I-15, and US 50 carrying 750 trucks per day.

High levels of truck traffic affect transportation safety in the area. A review of UDOT's vehicle safety report (UDOT 2004) and specific safety data shows that statewide, large trucks were involved in 3.5% of the "property damage only" crashes and 2.4% of the "vehicles involved in injury" crashes. On US 89 in Sevier County, large trucks were involved in 35% of the total accidents.

In addition, high levels of truck traffic cause roadway congestion, accelerate wear and tear on state roads and interstate highways, and negatively affect the quality of life in towns such as Salina, Centerfield, Gunnison, and Fayette.

The northern terminus of the proposed rail line would be located at the connection with the Union Pacific Railroad's (UPRR) mainline near Levan, Utah. The southern terminus would be at a point near the intersection of US 89 and US 50 (parallel to the former Marysville branch; see Figure 1, Project Area) near Salina. Implementing the Proposed Action would provide rail operations to and from the existing UPRR mainline for shippers in the Sevier Valley, reduce truck traffic congestion, and increase safety and the quality of life within the project area.

Pursuant to 49 United States Code (U.S.C.) 10502, the Surface Transportation Board, through its Section of Environmental Analysis (SEA), is the lead agency responsible under the National Environmental Policy Act (NEPA) for preparing a Draft Environmental Impact Statement (EIS) for the proposed project. The U.S. Department of the Interior, Bureau of Land Management (BLM), is a cooperating agency pursuant to 40 Code of Federal Regulations (CFR) 1501.6.

The purpose of this technical report is to present the results of field evaluations of previously identified potential jurisdictional waters of the U.S. in the CURP corridor.

E.2 Methods

Before conducting field investigations, SEA's wetland consultants reviewed existing data and began meeting with the U.S. Army Corps of Engineers (USACE) in January 2004. These existing data include prior studies such as the Central Utah Rail Feasibility Study (Washington Infrastructure Services Inc. and others 2001), Natural Resource Conservation Service data, U.S. Geological Survey (USGS) topography maps, and aerial photography. USACE (Defreese 2004) agreed that using existing data would be appropriate for evaluating the expected impacts to wetlands and other waters of the U.S. from the project alternatives, contingent on the following additional "ground-truthing":

- Evaluate a few select areas that represent the different wetland types and ephemeral drainages that would be encountered by the project alternatives.
- To characterize selected areas, record vegetation and any hydrology data on standard USACE data sheets.

The wetland consultants conducted surveys of select areas that represent the different wetland types and ephemeral drainages found along the CURP corridor on October 5, 2004, November 15, 2004, and July 25, 2005 (Figure 2, Wetland Survey Points). At each data collection point, dominant vegetation was recorded within potential wetlands/waters of the U.S. For ephemeral drainages, the vegetation data that were recorded were located within the drainages and adjacent to bed and bank development. Additionally, a handheld Garmin global positioning system (GPS) unit was used to record site locations.

The wetland consultants also took photographs to help document the site conditions that were present. Standard wetland delineation data sheets from USACE were used to document data at each site (Appendix B, Data Sheets). Data gathered included the date, biologist conducting the survey, data point identification number, GPS waypoint number, the number of photographs taken and the orientation of each, and dominant vegetation.

E.3 Results

Data point #1 was taken down near the Chicken Creek area. It is documented as GPS waypoint #227. The site is located between SR 78 and the existing railroad tracks. The hydrological source appears to be from impounded storm event sheet flow. No culverts under the highway could be visually identified. Photos #1 and #2 were taken at data point #1. Soil under an alkali crust was saturated to the surface. Dominant vegetation was hydrophytic, somewhat tolerant of saline, and indicative of riparian areas. These species included *Tamarix ramosissima* (salt-cedar), *Scirpus acutus* (hard-stem bulrush), *Distichlis stricta* (inland saltgrass), and *Salix exigua* (coyote willow).



Photo #1
Data point #1



Photo #2
Data point #1

Data point #2 was taken about 0.5 mile northeast of point #1. The GPS waypoint is #228. The photographs were oriented toward the east. As at data point #1, this vegetation also appears to be tolerant of salinity and indicates a riparian zone. However, the field biologist believed the area to be different enough to warrant a separate data point. It is east of the highway and appears to be hydrologically supported by various springs in the area. Vegetation observed includes salt-cedar and inland saltgrass. Additionally, in wetter years, this area probably receives some hydrologic support from precipitation runoff. Data point #2 is shown in photos #3 and #4.



Photo #3
Data point #2



Photo #4
Data point #2

Data point #3 appears to be a wet meadow with some species that suggest saline tolerance. Data point #3 was taken about 1 mile north of data point #2. The GPS waypoint is #229. Photographs #5 and #6 were oriented toward the east to southeast. This site appears to be on the northern fringe of Chicken Creek Reservoir. Vegetation is mainly *Juncus balticus* (wiregrass) with some salt-cedar and inland saltgrass. Hydrologic support appears to be in the form of springs and precipitation runoff.



Photo #5
Data point #3



Photo #6
Data point #3

Data point #4 is located in an upland area with a single culvert that conveys intermittent precipitation runoff under the graded dirt road. Vegetation present is *Sarcobatus vermiculatus* (greasewood), *Artemesia tridentata* (big sagebrush), *Atriplex canescens* (fourwing saltbush), and *Bromus tectorum* (cheatgrass). The GPS waypoint is #230. Photographs #7 and #8 show the vegetation type present. This data point is almost directly under the large power transmission lines.



Photo #7
Data point #4



Photo #8
Data point #4

Data point #5 is shown in photographs #9 (oriented looking south) and #10 (oriented looking north). The GPS waypoint is #231. The data point is at an ephemeral drainage that is an unnamed tributary to the Sevier Bridge Reservoir. The drainage has twin pipe culverts that convey intermittent precipitation runoff under the graded dirt road. The site is located about 0.5 mile from the reservoir. Dominant vegetation consists of greasewood, cheatgrass, big sagebrush, *Salsola iberica* (Russian thistle), and *Halogeton glomeratus* (halogeton).



Photo #9
Data point #5



Photo #10
Data point #5

Data point #6 is situated at a narrow portion of the Sevier River Reservoir where the large overhead power lines cross over the water. The GPS waypoint is #232. Photographs #11, #12, and #14 show the existing vegetation and physical setting. Photos #11 and #12 show views near the channel of the Sevier River, well below the ordinary high-water mark. Photo #14 was taken from the same location as #12, but shows the ordinary high-water mark (OHWM) and associated vegetation at the OHWM interface. The dominant vegetation near the river channel consists mainly of salt-cedar and *Carex* spp. (sedges). The vegetation near the OHWM is dominated by big sagebrush, *Chrysothamnus nauseosus* (rubber rabbitbrush), and *Gutierrezia sarothrae* (broom snakeweed).



Photo #11
Data point #6



Photo #12
Data point #6



Photo #13
Data point #6

Data point #7 was taken at a location that appeared on the USGS map to be an ephemeral drainage. The GPS waypoint is #233. Photographs #15 and #16 show the setting. The location where the proposed rail corridor would cross this particular drainage is about 0.25 mile to the west. Because the proposed corridor is west of the data point, both photos are oriented to the west to better show the existing conditions. The area around this ephemeral drainage appears to have been disturbed by agricultural practices. Any natural bed and bank development appears to have been channelized. Along the channel, a line of *Populus freemontii* (Freemont's cottonwood) were observed. Other dominant species at the site include rubber rabbitbrush and big sagebrush.



Photo #15
Data point #7



Photo #16
Data point #7

Data points #8 and #9 represent similar site conditions at an ephemeral drainage. These data points are GPS waypoints #234 and #235, respectively. These areas also appear to be disturbed agricultural areas. The dominant vegetation consists of rubber rabbitbrush, cheatgrass, *Agropyron cristatum* (crested wheatgrass), Russian thistle, and Fremont’s cottonwood (at site #8). These two sites are shown in photographs #17 through #20.



Photo #17
Data point #8



Photo #18
Data point #8



Photo #19
Data point #9



Photo #20
Data point #9

Data point #10 is also at an ephemeral drainage in an agricultural area. This site appears to have burned recently. The dominant vegetation is Russian thistle. This site appears very disturbed with very little remnant native vegetation. The GPS waypoint is #236. Photographs #21 and #22 show the extent of Russian thistle invasion.



Photo #21
Data point #10



Photo #22
Data point #10

Data point #11 is located at the point at which Alternative A of the proposed rail line would intercept SR 50 and Denmark Wash. Denmark Wash, a tributary of the Sevier River, is conveyed under the north-south-oriented road through twin box culverts. The GPS waypoint is #237. Photographs #23 and #24 show the setting of the site. Photograph #23 is oriented to the south, and the eastbound lane of SR 50 can be seen in the foreground. Photograph #24 is oriented to the north and is more indicative of the type of vegetation surrounding Denmark Wash. This vegetation is mainly salt-cedar, coyote willow, and *Kochia scoparia* (summer cypress).

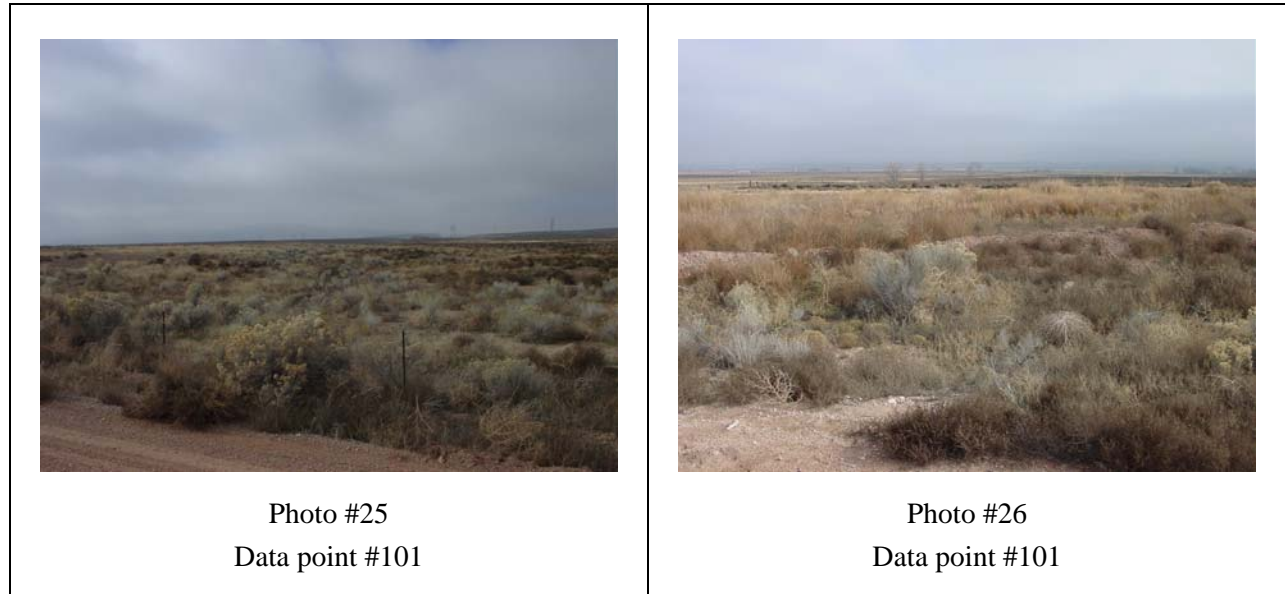


Photo #23
Data point #11



Photo #24
Data point #11

Data point #101 is located adjacent to the Piute Canal about 0.75 mile north of SR 50. The GPS waypoint is #239. Photographs #25 and #26 show the setting of the site. Photograph #25 is oriented to the south, #24 to the north. The vegetation is mainly aggressive invaders: cheatgrass, Russian thistle, and broom snakeweed with some desirable shrubs such as rubber rabbitbrush. Data points #102, #103, #104, and #105 are all similar enough to data point #101 that they do not require itemized documentation.



Data point #106 has a bed and bank development that is about 3 meters wide. Photo #27 is from a somewhat elevated position; the orientation is south-southeast and shows how wide the overall swale appears to be. The dominant vegetation is big sagebrush, rubber rabbitbrush, broom snakeweed, *Sisymbrium altissimum* L. (tumbling mustard), and cheatgrass.



Data points #107 through #110 are associated with the Sevier River floodplain. The Sevier River is a perennial body of water. Therefore, these data points are not reported on in this document that characterizes ephemeral drainages.

Data points #201 through #210 are all very similar in nature and character to data points #101 through #105. The areas are generally disturbed, either by fire or by human development. The general vegetation is consistent with other ephemeral drainages in the project area. Dominant vegetation includes big sagebrush, rubber rabbitbrush, low rabbitbrush, broom snakeweed, Indian ricegrass, cheatgrass, Russian thistle, tumbling mustard, and the occasional saltbush. Representative photos of these areas are photographs #28 and #29.



Photo #28
Data points #201– #210



Photo #29
Data points #201 – #210

Data point #211, GPS waypoint #279, appears to be a perennial tributary to the Sevier River. It is not discussed in this document.

E.4 Conclusions

All of the wetland areas that were evaluated contained vegetation and hydrology that indicates jurisdictional wetlands. Three wetland types were identified in the CURP study area: saline wet meadow/mudflat, emergent marsh, and limited riparian areas. The vegetation and hydrology within wetland ecosystems throughout the study area were representative of these three wetland types. The ephemeral drainages in the proposed project corridor are relatively homogenous. The drainages vary mainly in terms of their width and depth. The existing vegetation and overall condition of these drainages indicate that the project area has undergone repeated human disturbances that include the clearing of vegetation for agricultural uses, fires, and accelerated erosion.

This report characterizes the types of waters of the U.S. that might be encountered within the proposed project corridor. This level of detail will help determine impacts to this resource from the proposed alignments and help determine a preferred alignment. If this project is approved, no construction will go forward without a completed wetland delineation along the preferred alignment and subsequent approval and appropriate permits from USACE.

E.5 References

Defreese, Amy

- 2004 Personal communication between Defreese, USACE, and Kris Gruwell and Rick Black of HDR Engineering regarding wetland methodology. January 26 and 27.

Gale, Jody

- 2004 Utah State Extension Area Agent. Field visit meeting notes with Shanna Moosman, Laynee Jones of HDR Engineering. December 04.

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- 2004 Crash Summary 2004. Utah Department of Public Safety, Highway Safety Office.
<http://www.highwaysafety.utah.gov/crashdata/2004/index.htm> Accessed January 2004.

Washington Infrastructure Services Inc., Freight Services Inc., Granger Rail Development Corporation, Jones and DeMille Engineering, and BIO-WEST

- 2001 Central Utah Rail Feasibility Study. Prepared for Six County Association of Governments. Draft Submittal October 17, 2001.

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Appendix A – Correspondence

Appendix B – Data Sheets