

Chapter 2: Proposed Action and Alternatives

This chapter describes the Proposed Action and Alternatives, which includes two Build Alternatives and the No-Action Alternative, that were considered in SEA's environmental review of the Applicant's petition before the Board. It also identifies and briefly discusses the alternatives that were considered and eliminated from detailed analysis. The alternatives that are analyzed in detail in this Draft EIS include two Build Alternatives and the No-Action Alternative.

- **No-Action Alternative.** Under the No-Action Alternative (Alternative A), no new rail line construction would take place. Central Utah shippers would continue to transport commodities by surface roads within portions of Juab, Sanpete, and Sevier Counties.
- **Build Alternatives.** The Build Alternatives include the Proposed Action (Alternative B) and one other alternative (Alternative C) that would involve construction of a new rail line that would connect the UPRR mainline to shippers within portions of Juab, Sanpete, and Sevier Counties. Each alternative would run from the UPRR mainline within portions of Juab, Sanpete, and Sevier Counties beginning near Juab, about 16 miles south of Nephi to the industrial area located about 0.5 mile southwest of Salina.

2.1 Alternatives Development

Prior to filing the petition for exemption with the Board, the Applicant conducted a feasibility study (Washington Infrastructure Services Inc. and others 2001) to develop and evaluate potential routes for a new rail right-of-way to provide a more direct connection to rail service for the coal industry (primarily SUFCO) and other shippers within central Utah. The Applicant identified potential routes during the period prior to and during scoping. The potential routes for the rail line are referred to as *alignments*. For the purpose of analyzing potential routes beyond the scoping process, SEA refers to the routes as *alternatives*. Section 2.3, Alignments and Alternatives Considered but Eliminated from Detailed Study, summarizes the Applicant's process of developing and evaluating alignments and the Board's evaluation of alternatives.

NEPA regulations require agencies to consider a range of reasonable and feasible alternatives. In this context, SEA undertook its own analysis of the alignments developed by the Applicant and those that arose during the scoping period, including modifications suggested by agency and public comments. SEA's analysis considered whether the alternatives met the project's purpose and need, as well as what environmental issues they might involve. Section 2.2 describes the alternatives that are analyzed in detail in this Draft

EIS. Section 2.3 describes alternatives that were eliminated from detailed study because they have been determined not to be reasonable and feasible. Section 2.4 summarizes the anticipated environmental effects of each of the alternatives carried forward in this EIS for further analysis.

SEA preliminarily concludes, based on information available to date, that the environmental distinctions between the proposed alternatives are currently not sufficient enough to designate one environmentally preferable alternative. SEA specifically requests comments on this issue from all interested parties and the public. See Table 2.1-1. Comparison of the Environmental Impacts of the Alternatives.

2.2 Alternatives Considered in SEA's Environmental Review

2.2.1 Alternative A (No Action)

CEQ's regulations implementing NEPA (40 CFR 1502.14(d)) require consideration of a No-Action Alternative. The No-Action Alternative provides a basis for comparing the other project alternatives.

For the No-Action Alternative, no new rail line or terminal facilities would be constructed. No new train operations through Juab, Sanpete, and Sevier Counties would be conducted, and rail operations on the UPRR line would not change. Coal-haul trucks would continue to use roads and highways in portions of Juab, Sanpete, and Sevier Counties to transport coal from SUFCO to the existing UPRR mainline near Juab.

2.2.2 Alternative B (Proposed Action)

The Proposed Action would involve construction of a new rail line between the UPRR mainline starting in Juab about 16 miles south of Nephi and terminating at a loading facility in the industrial park about 0.5 mile southwest of Salina (see Figure 2-1, Alternatives). The connection with the UPRR would be a wye (a Y-shaped intersection) to the northern terminus/maintenance yard as shown in Figure 2-2, Northern Terminus/Maintenance Yard. Sidings are tracks that would be located within the right-of-way parallel to a main track that allow trains to be stored and to pass each other. Specific locations for sidings have not yet been determined.

The proposed project area is located within portions of Juab, Sanpete, and Sevier Counties. The alignment of the Proposed Action would be generally north-south and would pass south of Sevier Bridge Reservoir through portions of Juab County, continuing south through a valley east of the Pahvant Range and the Valley Mountains and west of the San Pitch Mountains (also called the Gunnison Plateau). The Proposed Action would cross the Sevier Bridge Reservoir at Yuba Narrows, south of Yuba Lake Recreation Area, where the reservoir narrows. This crossing would be adjacent to the point where a high-voltage transmission line currently crosses the reservoir. The Proposed Action continues southward along and outside

of the western edge of a marshy area south of the reservoir. South of the reservoir, the Proposed Action continues along the western edge of the agricultural areas roughly parallel to but east of the existing high-voltage transmission line. It gradually veers to the south-southeast and then south toward the Sanpete County–Sevier County border and eventually to Salina, where the alternative terminates. Between the county border and Salina, the Proposed Action would cross primarily agricultural land about a mile west of Redmond and then cross US 50 near its crossing of the Sevier River west of Salina. The Proposed Action terminates north of I-70 at the proposed loading facility in the industrial park about 0.5 mile southwest of Salina.

2.2.2.1 Proposed Action Construction

Alternative B would involve construction of about 43 miles of new rail line. Based on the Applicant’s Feasibility Study (Washington Infrastructure Services Inc. and others 2001), this alternative would require about 1,200 acres of new right-of-way for construction, including a 200-foot-wide rail right-of-way, the load-out facility about 0.5 mile southwest of Salina, and the interchange rail yard near Juab about 16 miles south of Nephi. Figure 2-3, Cross-Sections, shows the typical cross-section of the Proposed Action. See Table 2.2-1 for land ownership within the project right-of-way under Alternative B.

Table 2.2-1. Land Ownership within Project Right-of-Way under Alternative B

Ownership	Juab County (acres)	Sanpete County (acres)	Sevier County (acres)
BLM Fillmore Field Office	0	NA	NA
BLM Richfield Field Office	NA	21	0
State	7	70	4
Private	139	71	64
Total	146	162	68

The proposed rail line would create nine new at-grade public road/rail crossings and 43 new private (farm) road/rail at-grade crossings and would cross 13 water bodies. The Applicant proposes a grade-separated crossing over US 89. The proposed rail line would not cross any other interstate highway corridors; therefore, no other grade-separated crossings would be needed. The crossings of US 24 south of Salina and US 50 west of Salina would require automatic crossing gates. Flashing lights would be placed on SR 78 west of Levan. The remaining rural paved and unpaved roads would have railroad crossing signs. Bridges would be required for the Yuba Narrows and Sevier River crossings. The remaining water bodies (canals and creeks) that would be crossed would require smaller bridge structures or culverts.

Should the Board and BLM permit the Applicant’s proposal, the Applicant anticipates that construction could be accomplished in 24 to 30 months once an operator is identified, funding

is available, and construction permits are obtained. About 77 employees would be needed during the railroad construction. Both temporary staging areas and temporary access roads would be necessary within the project right-of-way; however, specific locations have not yet been identified. No temporary work camps are anticipated. About 4,100,000 cubic yards of earth would have to be moved and 520 acres of vegetation would have to be cleared during construction.

No special construction needs or features have been identified. Some ballast material and fuel could be provided locally, but ballast, sub-ballast, ties, and rail materials would likely come from outside the central Utah area. As much as possible, use of unearthened rocks and borrowing and disposing of soil would take place within the right-of-way. Otherwise, these materials would be removed and disposed of at an authorized facility. The Proposed Action would require about 1,300,000 cubic yards of borrow. Materials would come from sites along the project area within the right-of-way that are between 0.25 mile and 0.5 mile from the centerline (Thorne 2006).

Water would be needed during construction for compacting embankments and controlling dust. The Applicant estimates that between 1,100 acre-feet and 1,500 acre-feet of water would be needed. The Applicant would arrange to purchase this water from a local water association or individual water rights holder as necessary during construction. The method of delivery would be developed during subsequent design phases.

2.2.2.2 Proposed Action Operations

At this time, the Applicant has not decided who would own and operate the newly constructed rail line. Options that are being explored include a private/public partnership or a special rail district that would be approved by the Utah state legislature. The Applicant has filed the right-of-way application with BLM to construct, operate, maintain, and terminate the proposed rail line across public land. If the ownership and operation of the rail change after the grant is issued, an application could be filed to have the Applicant's right-of-way grant assigned to a new owner/operator. Similarly, the Applicant has filed a petition with the Board to construct and operate a rail line. If the owner and operator of the rail line should change after the Board issues a license, a petition should be filed by the new owner/operator to acquire the new rail line. The Applicant would work with state and private landowners in coordination with appropriate rules and regulations to construct, operate, maintain, and terminate the proposed rail line.

The Applicant anticipates that operations and maintenance would be conducted through an agreement with a private firm. About 19 employees would be needed to operate and maintain the proposed rail line. The employees would be housed at the interchange yard discussed below. The Applicant has met with representatives of UPRR, and a draft connection agreement with the existing rail line has been developed. UPRR would not be involved in any operations on the proposed rail line. The Applicant expects one round trip (two movements

which equals one full load and one empty back-haul) per day. About 100 to 110 cars would be involved in each round trip. Most of the shipments would consist of coal transported in coal cars. The Applicant anticipates that one loaded train or less of miscellaneous commodities would be transported along the proposed rail line per week. However, these shipments would not contain hazardous materials. During construction, only work trains would operate on the proposed rail line.

The Proposed Action would consist of a single track, except at the northern interchange yard near Juab, about 16 miles south of Nephi (connection with the existing UPRR) and the rail head load-out facility about 0.5 mile southwest of Salina (see Figure 2-2, Northern Terminus/Maintenance Yard, and Figure 2-4, Southern Terminus/Coal Loading Facility). Sidings would be necessary to allow trains to pass each other and to allow other train activity besides SUFCO's operations. At this time, the need for sidings has been identified, and the environmental impacts of these sidings are considered within the project analysis area. However, the specific locations of sidings would be identified later during a review of final train operations.

A small maintenance rail yard is planned at the Juab connection (see Figure 2-2, Northern Terminus/Maintenance Yard). Within this yard, a small building is planned that would handle minor maintenance for both locomotives and running cars. The maintenance crew would include mechanical and right-of-way maintenance personnel. A yard office building for the administrative staff is also planned in this yard that would be used for communications. Specific design for the maintenance building is not yet known; however, design and construction would be performed in cooperation with local, state, and Federal regulations.

No permanent access roads would be necessary along the main line of the Proposed Action. Temporary access roads would be necessary at the interchange yard in Juab, located about 16 miles south of Nephi, and at the coal load-out facility located in the industrial park about 0.5 mile southwest of Salina. Temporary access roads would also be needed at siding locations within the project right-of-way.

The rail line would be designed to allow trains to travel up to 49 mph. This is the design speed that is required under the Federal Rail Administration requirements for freight train movements in non-signalized areas. The trains would operate in a dark territory (an area that is not governed by rail signals or automatic gates) and would not be dispatched; rather, train operations would rely on train crews following operating procedures. Crossings within the project area would be marked as necessary for train and public safety. The rail line was designed to UPRR standards and the recommendations of the American Railway Engineering and Maintenance-of-Way Association.

2.2.3 Alternative C

Alternative C is an alternative suggested by citizens who attended the public scoping meetings. This alternative was suggested because it minimizes the visual impacts of the rail line and would disturb fewer parcels of farmland within the project area. This alternative would follow the same alignment as the Proposed Action from the northern terminus to a point about 4.5 miles north of the Sanpete County–Sevier County border. At this point, Alternative C begins to run south on the west side of the Piute Canal, about 0.5 mile to 1.0 mile west of the Proposed Action but east of the existing high-voltage transmission line. Alternative C would continue south essentially parallel to but west of the Proposed Action and the Piute Canal across the Sanpete County–Sevier County border. Alternative C would then rejoin the Proposed Action about 0.5 mile south of the point where the Proposed Action crosses US 50 about 3 miles west of Salina (see Figure 2-1, Alternatives). See Table 2.2-2 for land ownership within the project right-of-way under Alternative C.

Table 2.2-2. Land Ownership within Project Right-of-Way under Alternative C

Ownership	Juab County (acres)	Sanpete County (acres)	Sevier County (acres)
Fillmore BLM	0	NA	NA
Richfield BLM	NA	30	21
State	7	65	14
Private	139	53	137
Total	146	148	172

Because Alternative C remains west of the Piute Canal, it also remains at a higher elevation on the foothills than does Alternative B toward the south end of the described area. The elevational difference from the foothills where Alternative C crosses US 50 to the load-out facility is about 75 feet higher than the elevational difference for Alternative B. Therefore, from US 50 to the southern terminus, Alternative C requires a steep grade that cannot be safely navigated by a fully loaded train. The exact grade of this slope is not yet determined; however, a berm with a maximum height of 75 feet and a maximum width of 550 feet would be needed to reduce the grade so that a loaded train can gain the elevation to and from the southern terminus rail head load-out facility to the point where it crosses US 50. This berm would provide a platform on which to build a rail line that gradually reduces elevation to create a safe and operational approach to the southern terminus load-out facility.

The Alternative C alignment would require fewer crossings of the Piute Canal and associated irrigation facilities since it would remain west and upslope from the canal. It would also cross fewer agricultural lands and residences on the west side of the described area. Operations for this alternative would be the same as those for the Proposed Action.

2.3 Alignments and Alternatives Considered but Eliminated from Detailed Study

This section describes the alignments and alternatives that were eliminated from further consideration because they were considered unreasonable or infeasible. These alternatives are shown in Figure 2-1, Alternatives, and Figure 2-5, Applicant Alignments. In accordance with the NEPA regulations (40 CFR 1502.14(a)), this section includes the rationale for SEA's elimination of certain alignments and alternatives from further consideration and detailed environmental review.

Prior to applying to the Board for authority to construct and operate the proposed rail line, the Applicant completed a Feasibility Study in 2001 that developed a range of rail right-of-way alignments that potentially fulfilled the purpose and need of restoring rail service within portions of Juab, Sanpete, and Sevier Counties. SEA reviewed and verified the applicant's Feasibility Study (see Appendix K, Central Utah Rail Feasibility Study). The alignments from the Feasibility Study provided a more direct connection to rail service for the coal industry (primarily SUFCO) and other potential shippers within portions of Juab, Sanpete, and Sevier Counties and central Utah than the current use of trucks. The alignments were designed to reduce the number of trucks on highways in portions of Juab, Sanpete, and Sevier Counties. The Feasibility Study analyzed environmental, engineering, market, and economic issues associated with the alignments.

The Feasibility Study identified multiple alignments that would connect the existing UPRR rail line near Juab, about 16 miles south of Nephi, to a proposed coal transfer terminal facility at the industrial park located about 0.5 mile southwest of Salina. Routes were developed based on the following planning goals:

- Minimize disruption to private landowners.
- Minimize impacts to irrigated farmland.
- Reduce coal truck traffic through Salina and other communities.
- Minimize impacts to wetlands and other environmental resources.
- Meet rail shipper and receiver needs.
- Optimize rail operations.
- Minimize capital investment costs.

2.3.1 Preliminary Alignments Development and Screening

The Applicant developed and evaluated a range of potential rail alignments. These alignments are illustrated in Figure 2-1, Alternatives, and Figure 2-5, Applicant Alignments, and summarized in Table 2.3-1 below. For the development of rail alignments, two potential (northern) connection points with the UPRR were considered: Juab and Mills. Potential alignments extend south from these termini and converge at Yuba Narrows, then diverge along five different routes and converge again at the southern terminus at Salina. Coal

transfer facilities were evaluated at Sigurd and Salina. Two other coal-handling facilities were evaluated: one on the west side of Sevier County just north of US 50 and another north of Salina. Both of these locations were eliminated during the Feasibility Study process because they did not meet several of the key study goals.

Table 2.3-1. Preliminary Central Utah Rail Project Alignments

Alignment	Description	Length (miles)
<i>Northern Alignments</i>		
N1	Mills to Yuba Narrows	11.4
N2	Juab to Yuba Narrows	12.7
<i>Southern Alignments</i>		
S1	Yuba Narrows to Salina via western route	33.3
S2	Yuba Narrows to Salina via central route	34.3
S3	Yuba Narrows to Salina via eastern and central route	30.6
S4	Yuba Narrows to Salina via eastern route	32.0
S5	Yuba Narrows to Salina via western and central route	33.3

The Applicant developed a matrix-based screening to evaluate environmental impacts right-of-way requirements, conceptual capital and mitigation costs, operational requirements, and public and agency comments. The environmental resources and impacts considered in the screening were prime, unique, and state important farmlands; farmland fragmentation; grazing land impacts; noise and vibration; air quality; parks and recreation; geologic hazards; known hazardous waste sites; municipal wells; high groundwater; surface water; big game habitat and movement corridors; threatened and endangered species; and cultural resources. The conceptual capital and mitigation costs included right-of-way; earthwork and borrow; drainage; revegetation; fencing; bridges; grade-separated crossings; track works; road crossings; and engineering, construction management, and mobilization.

2.3.1.1 Northern Alignments

According to the Applicant's Feasibility Study, the northern alignment that terminates about 16 miles south of Nephi in Juab, Alignment N2, would have greater impacts on wetlands, farmland fragmentation, prime and unique farmland, big-game movements, stream crossings, and threatened and endangered species than the alignments that terminate in Mills. Alignment N1 would have greater impacts on residences and streams (Chriss Creek) near the alignment. The N2 (Juab) alignment would remove 30 acres of wetlands, while the N1 (Mills) alignment would have no wetland impacts. The Applicant determined that both northern alignments would have similar conceptual capital costs.

The Applicant determined that Alignment N1 would involve several construction and operational issues related to the crossing of I-15 and the connection with UPRR. One issue is

that the rail grade would need to be separated from the highway grade at the I-15 crossing; either the railroad would need to go over the highway or the highway would need to go over the railroad. Another issue is the operational, maintenance, and liability issues associated with a grade-separated crossing of an interstate highway, such as the locomotive power needed to get trains up such a grade if the railroad crossed over the highway.

Due to these construction and operational concerns and the expected environmental impacts, Alignment N1 was eliminated from detailed consideration in the environmental process. Alignment N2 was recommended for detailed consideration under NEPA.

2.3.1.2 Southern Alignments

For the alignments south of Yuba Narrows, the western alignments (S1, S2, and S5) generally would have lower environmental impacts. As with the northern alignments, all southern alignments would have similar conceptual capital costs. Alignment S1 would have the fewest environmental impacts and would have considerably fewer impacts on wetlands than the other southern alignments. Alignment S1 would remove an estimated 46 acres of prime and unique farmland, while the other alignments would remove 113 acres to 180 acres. Alignment S1 also would have the fewest impacts on areas with high groundwater, surface water crossings, and threatened and endangered species. Alignment S5 would have relatively low impacts on wetlands, farmland fragmentation, grazing, and threatened and endangered species. Alignments S1 and S5 would remove 2 acres and 4 acres of wetlands, respectively. Other alignments would remove a greater amount of wetlands with 50 acres removed for S2, 52 acres for S3, and 28 acres for S4. As a result, Alignments S1 and S5 would have substantially lower conceptual mitigation costs than the other alignments.

Due to their high environmental impacts compared to other alignments, Alignments S2, S3, and S4 were eliminated from detailed consideration in the environmental process. Alignments S1 and S5 were recommended for detailed consideration under NEPA.

2.3.1.3 Alternatives Developed from the Right-of-Way Analysis

Using the northern and southern alignments that were not eliminated from further analysis, SEA considered alternatives that were combinations of N2/S1 and N2/S5 (Alternative B). Alignment S1 was removed during the scoping phase because it was similar to the Alternative C proposed by the public, which is more sensitive to the aesthetic resources and disturbs fewer parcels of farmland. Both Alternatives B and C are 46 miles in length.

2.3.1.4 Marysvale Alignment (S4)

The Marysvale Branch was abandoned in 1984 following a landslide and washout damage in several locations along the rail line. The former right-of-way was sold to adjoining landowners, and in many instances it was converted to farming. In non-farming areas, the

grade is still evident. Most bridges and drainage structures have been removed, although a few concrete box culverts and short single-span concrete bridges remain.

The northern half of this alignment was not considered in the Feasibility Study because it was not economically or environmentally feasible to repurchase right-of-way and re-establish the rail structures (see Appendix K, Central Utah Rail Feasibility Study). A portion of the original Marysvale alignment from Gunnison to Salina was considered in the Feasibility Study as the S4 alignment discussed in Section 2.3.1.2, Southern Alignments. The S4 alignment was eliminated from detailed consideration due to lost earthwork volumes, high construction costs, impacts to farmlands, and least favorable operations.

2.4 Comparison of Environmental Impacts of Proposed Action and Alternatives

NEPA regulations require a comparison of the environmental impacts of the Proposed Action and Alternatives in order to define issues and provide a clear basis for the Board to choose among options. Table 2.4-1 compares the environmental impacts of the Proposed Action and Alternatives, including the No-Action Alternative, based on the information and analysis presented in Chapter 3, Affected Environment, and Chapter 4, Environmental Consequences.

Table 2.4-1. Comparison of the Environmental Impacts of the Alternatives

Resource Category	Alternative A (No-Action Alternative)	Alternative B (Proposed Action)	Alternative C
<i>Rail Operations and Safety</i>			
Traffic Delay	No effect.	No effect.	Same as Alternative B.
Traffic Safety	No effect.	Sharply reduce number of trucks carrying coal on SR 28 and US 89 between Salina and Levan. Increase traffic safety; no increase in delay from grade crossings.	Same as Alternative B.
Rail Lines	No effect.	Construct 43 miles of new single-track rail line between Juab and Salina. Applicant would operate one round trip (two movements which equals one full load and one empty back-haul) per day.	Same as Alternative B.
Trucking Operations	No effect.	Loss of 108 jobs in the local trucking industry.	Same as Alternative B.
Rail Accidents	No effect.	About one accident every 3 years.	Same as Alternative B.
Grade Crossing Safety		About one at-grade accident per year.	Same as Alternative B.

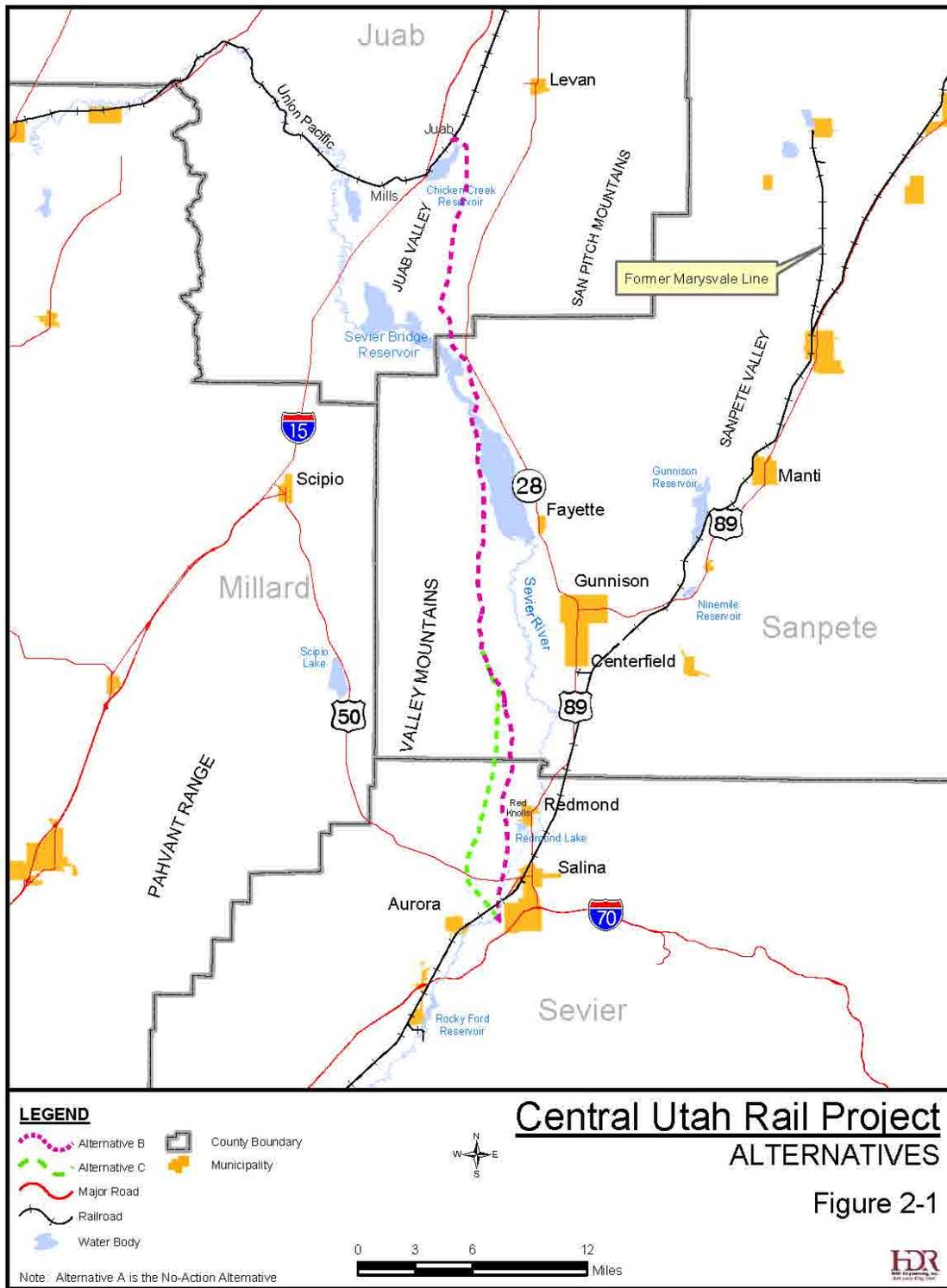
Resource Category	Alternative A (No-Action Alternative)	Alternative B (Proposed Action)	Alternative C
<i>Land Use</i>			
Land Use and Zoning	No effect.	Change in GMRF-1 zoning in Juab County would be necessary to allow the railroad. Proposed Action is compatible with state and BLM land use.	Same as Alternative B.
Farmland and Grazing Allotments	No effect.	Loss of 43.06 acres of irrigated farmland and 8.92 acres of non-irrigated farmland. Loss of 4.23 AUMs.	Affects fewer parcels of farmland, but results in loss of 121.53 acres of irrigated farmland and 8.92 acres of non-irrigated farmland. Loss of 4.69 AUMs.
<i>Biological Resources</i>			
Vegetation	No effect.	Loss of 538 acres of mixed-vegetation communities.	Loss of 660 acres of mixed-vegetation communities.
Wildlife and Threatened, Endangered, and Sensitive Species	No effect.	Wildlife would be temporarily displaced during construction and periodic maintenance. Potential for impact to long-billed curlew habitat in Redmond WMA.	Wildlife impacts would be same as those from Alternative B, except for no potential for impact to long-billed curlew habitat.
Wildlife Sanctuaries, Refuges, and State Parks	No effect.	Loss of 10.8 acres in Yuba Lake Recreation Area and 4.3 acres of wildlife habitat in Redmond WMA.	Loss of 10.8 acres in Yuba Lake Recreation Area. No impact to Redmond WMA.
<i>Water Resources</i>			
Surface Water	No effect.	Loss of 163.5 acres of wetland and crossing of 85 ephemeral drainages.	Loss of 163.0 acres of wetland and crossing of 109 ephemeral drainages.
Floodplains	No effect.	Disturbance to 15.96 acres of floodplain area.	Disturbance to 18.13 acres of floodplain area.
Groundwater	No effect.	Disturbance to 173.93 acres of groundwater recharge area.	Disturbance to 259.11 acres of groundwater recharge area.

Resource Category	Alternative A (No-Action Alternative)	Alternative B (Proposed Action)	Alternative C
Topography, Geology, and Soils			
Topography	No effect.	Requires 1,286,000 cubic yards of borrow material. Minor effect from fill of about 3 to 5 feet in varying places along rail line. Grade separations of maximum 25 feet over existing roadways and water crossings.	Construction of berm with maximum height of 75 feet and maximum width of 550 feet. Requires 12,518,000 cubic yards of borrow material.
Geologic Impacts	No effect.	No adverse effect to existing geologic conditions or increase in potential for occurrence of geologic hazards.	Same as Alternative B.
Soil Impacts	No effect.	Short-term impact to soil during construction. No long-term impact due to relatively flat topography.	Short-term impacts to soil during construction. Long-term potential for erosion on berm.
Prime Farmland	No effect.	Direct impacts to 12.1 acres of prime farmland. No indirect impacts.	Direct impacts to 19.99 acres and indirect impacts to 2.7 acres of prime farmland.
Farmland of State Importance	No effect.	Direct impacts to 3.1 acres of state important farmland.	Direct impacts to 3.06 acres of state important farmland.
Minerals and Mining	No effect.	Provide more cost-efficient method of transporting mining commodities.	Same as Alternative B.
Vibration	No effect.	No effect.	Same as Alternative B.
Hazardous Materials	No effect.	No effect.	Same as Alternative B.
Air Quality	No effect.	No effect.	Same as Alternative B.
Noise Impacts	No effect.	No noise thresholds would be exceeded. Slight increase in noise at residences and campgrounds.	Same as Alternative B.
Energy Resources	No effect.	Rail line would decrease energy use from 2,832 million Btu per day for truck shipping to 1,301 million Btu per day for truck and rail shipping. This would improve efficiency of coal transport in support of the National Energy Policy Act of 2005 (Public Law 109-58). There would be no effect on energy distribution, grade crossing delay, or safety.	Same as Alternative B.

Resource Category	Alternative A (No-Action Alternative)	Alternative B (Proposed Action)	Alternative C
<i>Socioeconomics</i>			
Population and Demographics	No effect.	Increased economic development could cause a small increase in population of Sanpete and Sevier Counties.	Same as Alternative B.
Employment and Income	No effect.	About 108 trucking jobs would be lost. However, the rail line would contribute 328 net new jobs from various industries.	Same as Alternative B.
Agricultural Industry	No effect.	No significant impacts to the agricultural industry.	Same as Alternative B.
Sales Tax Base	No effect.	Sales tax base would increase by 0.05% to 0.2% over 2002 levels annually.	Same as Alternative B.
Property Tax Base	No effect.	Property tax base loss would be less than 0.1% per county.	Same as Alternative B.
Community Facilities	No effect.	An initial spike in demand for services and facilities would occur with the construction phase of the project and then decline.	Same as Alternative B.
Emergency Response	No effect.	No significant effect to existing emergency response times in the study area.	Same as Alternative B.
Environmental Justice Communities	No effect.	No significant effect.	Same as Alternative B.
<i>Cultural and Historic Properties and Paleontological Resources</i>			
Cultural Resources	No effect.	Potential for significant impacts to cultural properties.	Same as Alternative B.
Historic Properties	No effect.	Potential for impacts to 27 prehistoric sites, 16 historic sites, and two multi-component sites.	Potential for impacts to 12 prehistoric sites and 18 historic sites.
Paleontological Resources	No effect.	No effect.	Same as Alternative B.

Resource Category	Alternative A (No-Action Alternative)	Alternative B (Proposed Action)	Alternative C
Recreation			
BLM-Administered Land	No effect.	Loss of about 0.02% of BLM-administered land in the study area would not have a significant impact on recreation.	Loss of about 0.06% of BLM-administered land in the study area would not have a significant impact on recreation.
Paiute All-Terrain Vehicle (ATV) Trail System	No effect.	Wait time of about 3 minutes 12 seconds per day would not have a significant impact on trail use.	Construction of berm would cut off a loop of 1,570 linear feet of the Paiute ATV trail.
Chicken Creek Reservoir	No effect.	No effect.	Same as Alternative B.
Yuba Lake Recreation Area and Sevier Bridge Reservoir	No effect.	Loss of about 11 acres would not significantly affect recreation activities.	Same as Alternative B.
Painted Rocks Campground	No effect.	Crossing of dirt access road about 200 yards from main entrance would not significantly affect recreation activities.	Same as Alternative B.
Yuba Narrows		Short-term impact to recreation activities during bridge construction. No long-term impact to boat use or other recreation activities.	Same as Alternative B.
Sevier River	No effect.	No effect.	Same as Alternative B.
Redmond Lake	No effect.	No effect.	Same as Alternative B.
Aesthetics			
Visual Characteristics	No effect.	Impacts would be greatest during short-term construction activities. Moderate long-term impact would remain from rail line including cut-and-fill slopes, three bridges, loss of agricultural land and other vegetation, and drainage structures.	Impacts would be similar to those from Alternative B. However, impacts would be greater in the southernmost 2.5 miles of the study area due to the 75-foot-tall berm. There would be fewer visual impacts on canal/irrigation crossing structures but more disturbance to agricultural land.
User Groups	No effect.	Because the rail line would not be in constant use, users would not likely have a high visual sensitivity to the tracks.	Same as Alternative B.
Wild and Scenic Rivers	No effect. There are no potentially eligible wild, scenic, or recreational river segments in the study area.	Same as Alternative A.	Same as Alternative A.

Figure 2-1. Alternatives



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Figure 2-2. Northern Terminus/Maintenance Yard

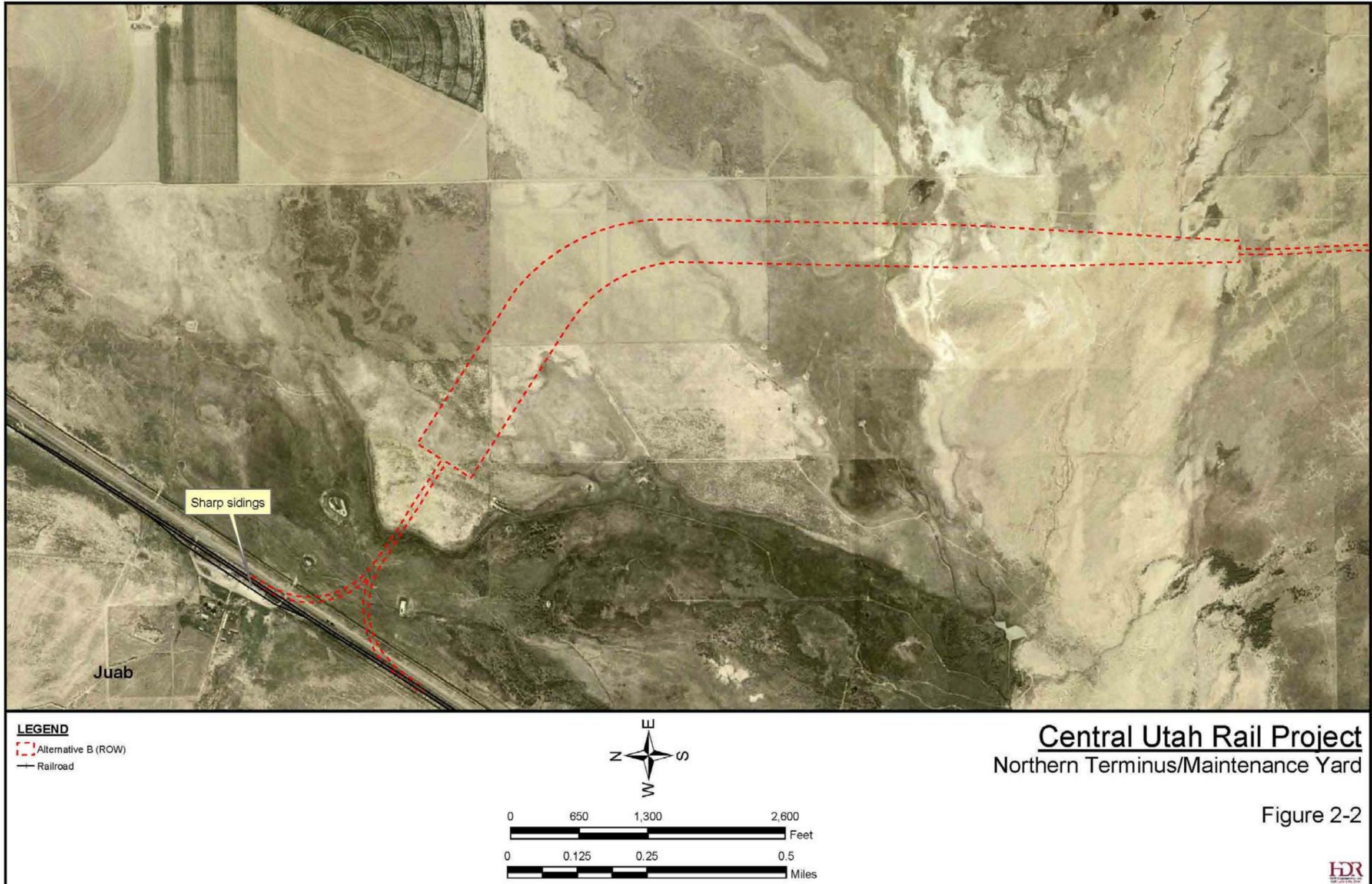
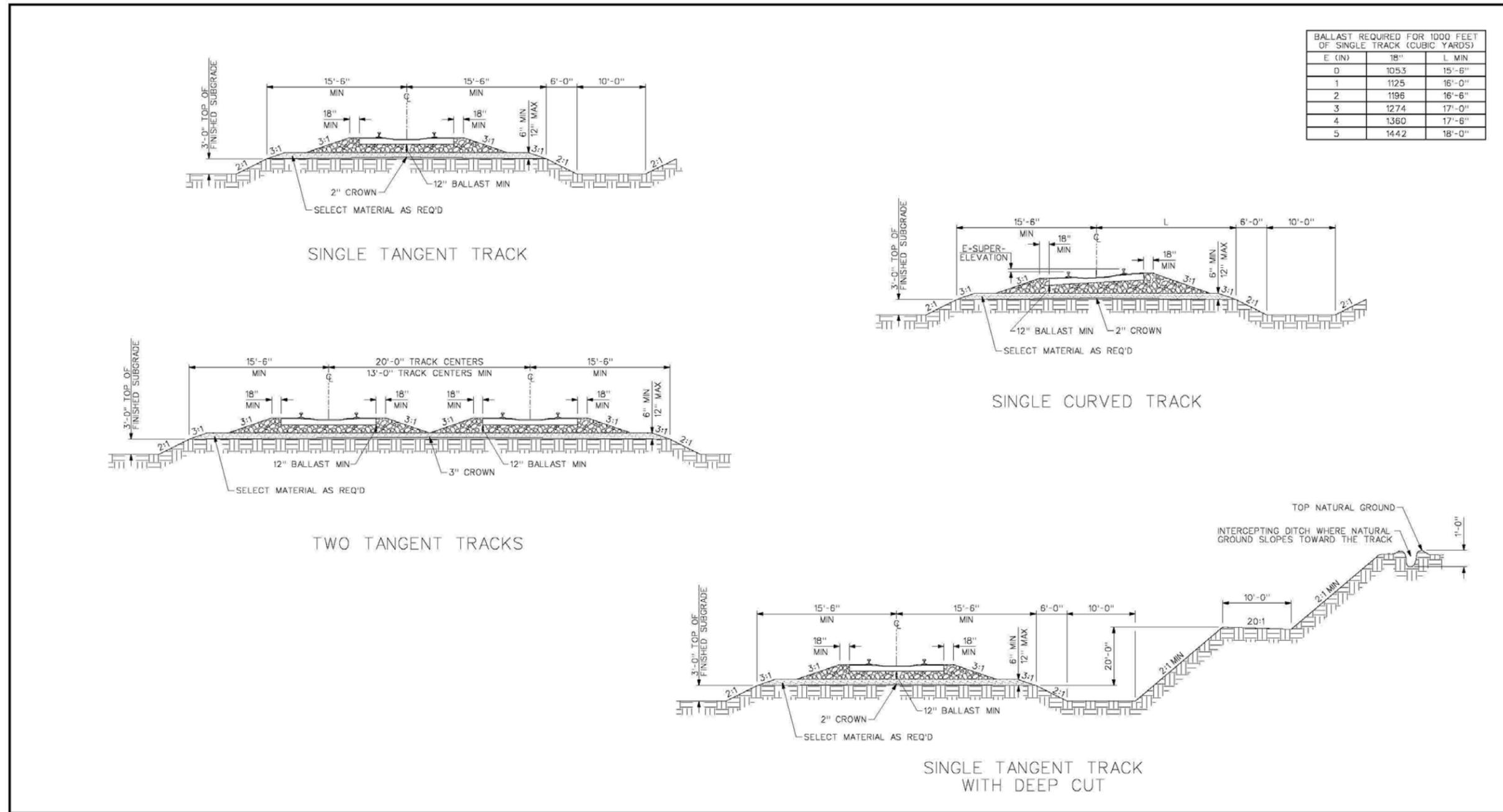


Figure 2-3. Cross-Sections



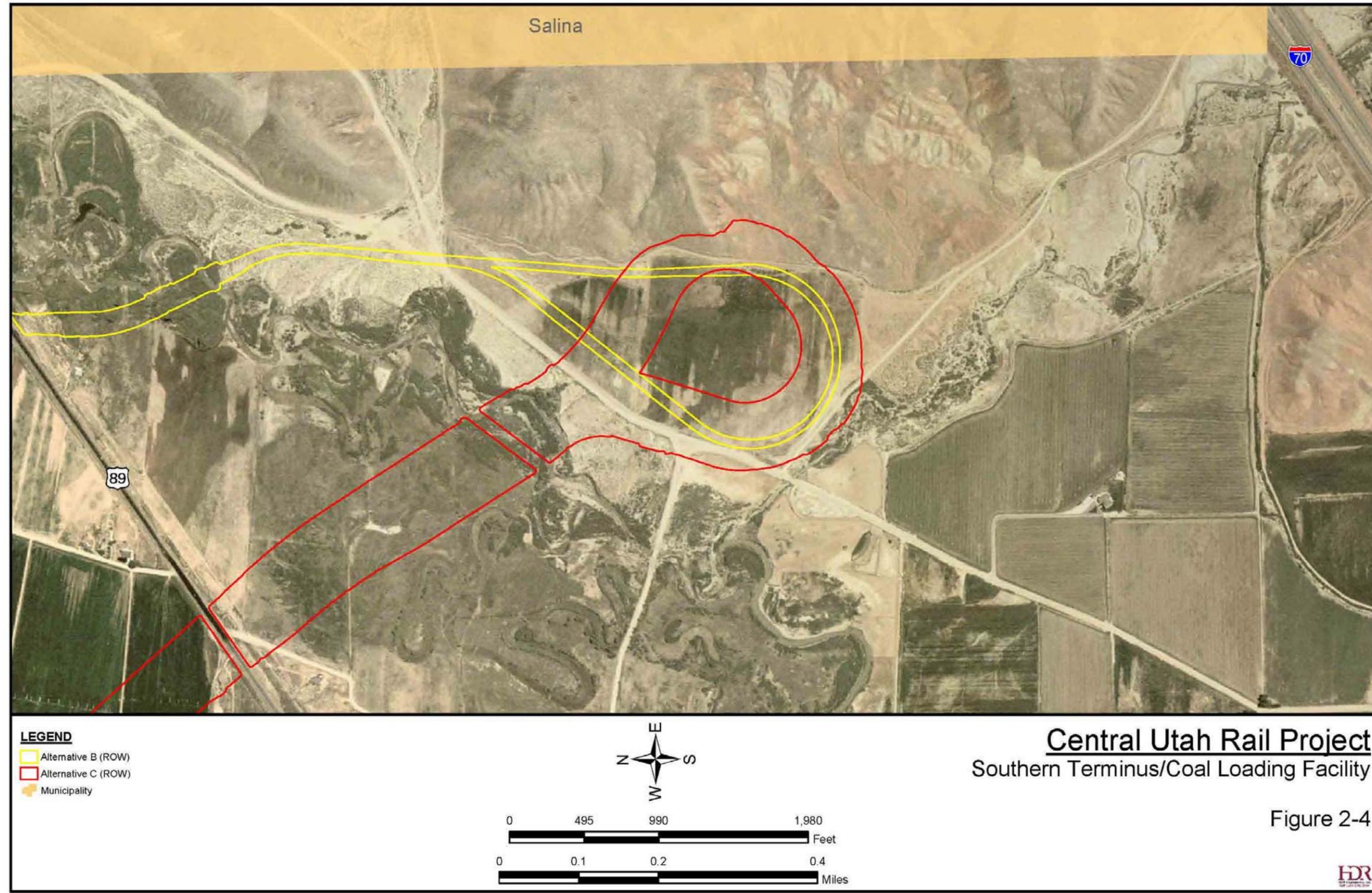
BALLAST REQUIRED FOR 1000 FEET OF SINGLE TRACK (CUBIC YARDS)		
E (IN)	18"	L MIN
0	1053	15'-6"
1	1125	16'-0"
2	1196	16'-6"
3	1274	17'-0"
4	1360	17'-6"
5	1442	18'-0"

Central Utah Rail Project
Cross Sections

Figure 2-3



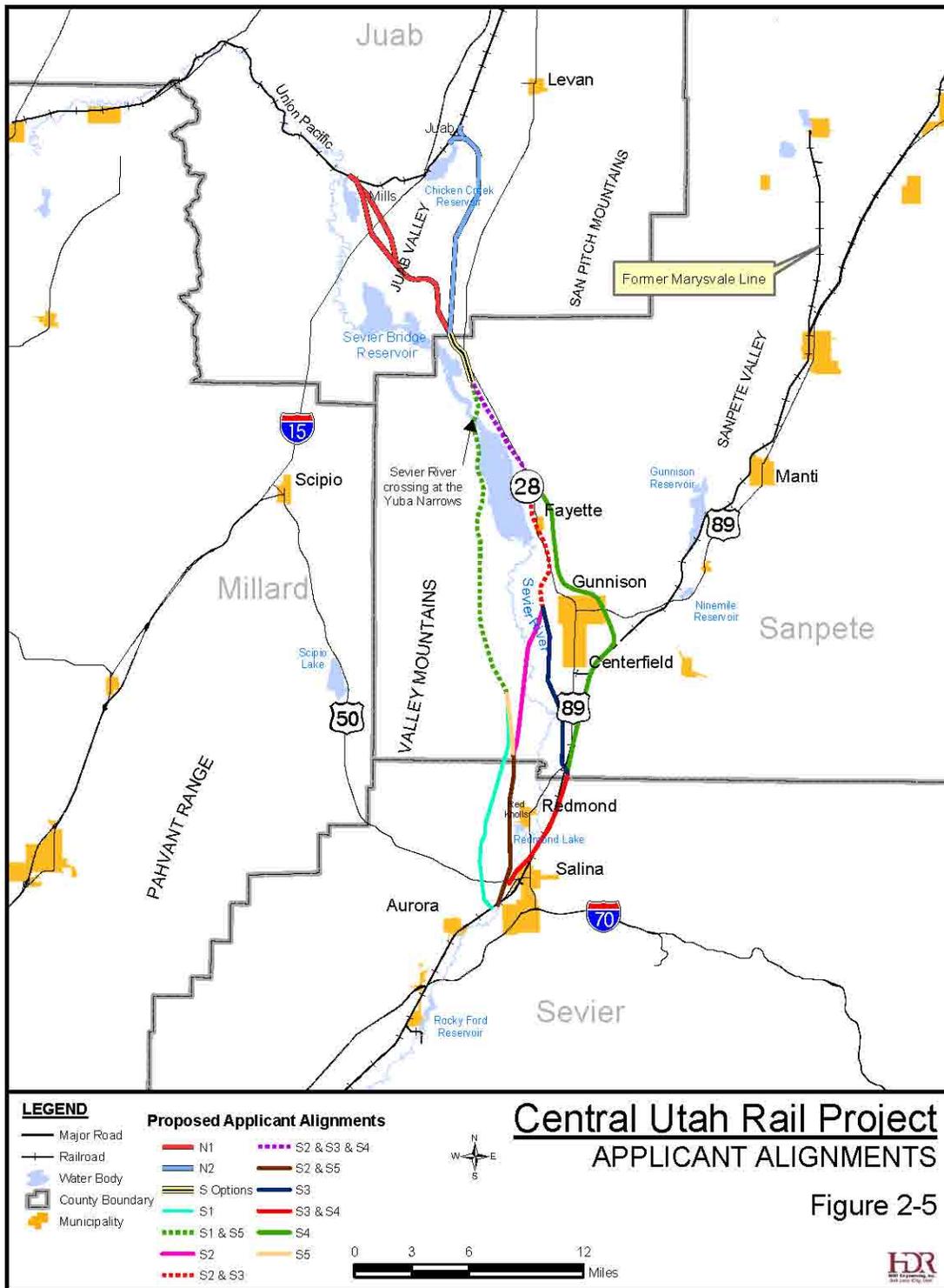
Figure 2-4. Southern Terminus/Coal Loading Facility



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Figure 2-5. Applicant Alignments



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