

Traffic and Transportation Management Plan



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List of Abbreviations and Acronyms

AADT	Average Annual Daily Traffic
BLM	Bureau of Land Management
CR	County Road
CS	compressor station
CY	construction yard
DOT	Department of Transportation
FERC	Federal Energy Regulatory Commission
FWNF	Fremont-Winema National Forest
Hwy	Highway
I	Interstate
MP	milepost
mph	miles per hour
NCA	National Conservation Area
NDOW	Nevada Department of Wildlife
NV DOT	Nevada Department of Transportation
ODFW	Oregon Department of Fish and Wildlife
OR DOT	Oregon Department of Transportation
Project	Ruby Pipeline Project
ROW	right-of-way
Reclamation	U.S. Department of the Interior, Bureau of Reclamation
RFCYP	Route from Construction Yard to Pipeline
RFVCP	Route from Vya Camp to Pipeline
RTCY	Route to Construction Yard
RTVC	Route to Vya Camp
Ruby	Ruby Pipeline, LLC
SR	State Route
Traffic Plan	Traffic and Transportation Management Plan
USDA-NRCS	United States Department of Agriculture, Natural Resources Conservation Service
USFS	United States Forest Service
UT DOT	Utah Department of Transportation
UDWR	Utah Division of Wildlife Resources
WGFD	Wyoming Game and Fish Department
WY DOT	Wyoming Department of Transportation

1.0 Introduction

The Ruby Pipeline Project (Project), proposed by Ruby Pipeline, LLC (Ruby), is comprised of approximately 675.2 miles of 42-inch diameter natural gas pipeline, along with associated compression and measurement facilities, located between Opal, Wyoming and Malin, Oregon. An approximate 2.6-mile lateral would also be constructed north to the Malin Hub in Klamath County, Oregon. The pipeline right-of-way (ROW) would cross four states: Wyoming, Utah, Nevada, and Oregon. Four new compressor stations (Roberson Creek, Wildcat Hills, Wieland Flat, and Desert Valley) would be installed as part of the Project. The pipeline would also tie in to one existing compressor station: the King Compressor Station in Wyoming.

The purpose of this Traffic and Transportation Management Plan (Traffic Plan) is to:

- Describe how Ruby will use, improve, and maintain roads for construction of the Project; and
- Evaluate potential impacts of construction traffic ingress and egress at contractor yards, storage/staging yards, and compressor stations.

The Traffic Plan also describes how Ruby would implement equipment access to and from the ROW, drainage improvement procedures, dust control and maintenance measures, and, if required, reclamation and abandonment of roads.

1.1 Traffic Impacts

The road network in Wyoming, Utah, Nevada, and Oregon in the vicinity of the Project area is a rural system generally characterized by paved two-lane state roads and by unpaved roads managed by the Bureau of Land Management (BLM), Bureau of Reclamation (Reclamation), and the U.S. Forest Service (USFS), as well as county and private roads. There would be temporary impacts to these roads due to pipeline crossings and construction traffic. These impacts would be within the bounds of approval by federal agencies, local permits, and guidelines, and as permitted by local landowners. Permits relating to roads associated with the Ruby Project are listed in Table 1.1-1.

At completion of the Project, Ruby would restore all roads back to their original status, unless Ruby is directed otherwise in writing by the landowner or land management agency.

Table 1.1-1 Permits Relating to Roads Associated with the Ruby Pipeline Project

COUNTY, STATE	REQUIREMENTS
WYOMING	
Lincoln County	
Lincoln County Engineering & Surveying Ross Turner - County Engineer	There are no specific weight, height, or length restrictions at the county level. Only state standards apply (see WYDOT below).
Uinta County	
Uinta County Public Works AJ Barker	County would like to be informed in advance of what roads will be accessed. A few roads and bridges may incur restrictions. There are no published weight, height, or length conditions.
State of Wyoming	
WY DOT Office of Overweight Loads Kim Moore, Permits	Height: 14' max (with permit max is 17') Width: 8'6" max (with permit max is 18') Length: 81' (with permit max is 110') Weight: 117,000 lbs. (with permit max is 150,000 lbs.)
UTAH	
Rich County	
Rich County Planning Commission Al Harrison	Encroachment Permit. This will cover moving equipment across roads and for any necessary re-grading of roads.
Ray Lutz, County Road Supervisor	Regarding length, weight, and height restrictions, there are restrictions on bridges. Wooden bridges with weight restrictions of 10 to 25 tons. Notify County Roads before using bridges.
Cache County	
Cache County Planning Lynn Lemon, County Administrator, and Josh Runhaar, Dir. Of Dev. Services	Over-length, weight, and height permits: the standards depend on what roads are used.
Box Elder County	
No road use permits required	
State of Utah	
Department of Transportation Tommy Vigil, ROW Control Supervisor	ROW Encroachment Permit Application (by contractor), the ROW Encroachment Permit will cover any necessary road crossings (for moving equipment).
NEVADA	
Elko County	
Elko County Planning and Zoning Commission Scott (Randy) Brown.	Public ROW Encroachment Permit

Table 1.1-1 Permits Relating to Roads Associated with the Ruby Pipeline Project

COUNTY, STATE	REQUIREMENTS
Humboldt County	
Humboldt County Road Department (775) 623-6416 or (775) 623-6475	County wants to see Transportation Plan for moving of equipment and pipe. Also wants to be informed where any equipment and potential pipe storage yards will be located.
Washoe County	
Nevada Department of Transportation Jim Aagard & J.P. Marden And Washoe County Public Works Department, (775) 328-2040	Right-of-way Occupancy Permit Application Temporary Right-of-way Occupancy Permit Application Underground Installation standards and requirements.
State of Nevada	
Nevada Department of Transportation	Permanent Encroachment/Right-of-Way permits are required for crossing state and U.S. highways.
OREGON	
Lake County	
Lake County Planning Commission Rick DuMileu, Lake County Road Master	If crossing county roads a ROW permit is required
Klamath County	
Klamath County Public Works Stan Strickland, Director	All road permits will be issued through the Public Works Office after Public Hearings take place. Requires stamped engineering plans detailing crossing and updated digital shape file.

Key:
 ROW = Right-of-Way
 WY DOT = Wyoming Department of Transportation

1.1.1 Pipeline Road Crossings

Construction of the pipeline would require crossing paved and unpaved roads with varying levels of traffic. Most of the smaller unpaved roads would be crossed by open-trenching and then restored back to original their status. Provisions would be made for detours or other measures to permit traffic flow during construction. If no reasonable detour exists, then at least one lane of traffic would be kept open while pipeline is installed underneath the other half. In the interest of public safety, Ruby would coordinate any road closures with federal, state, and local emergency responders (law enforcement, fire, and medical). Construction of pipelines across major paved highways, railroads, paved roads, and unpaved roads where traffic cannot be interrupted would be accomplished by boring under the roadbed. The pipeline would be buried to the depth required by applicable road crossing permits and approvals and

would be designed to withstand anticipated external loadings. The number of various types of road and railroad crossings is provided in Table 1.1-2.

Table 1.1-2 Summary of Ruby Pipeline's Road and Railroad Crossings

County/State	US or State Highway Crossings	County or Private Road Crossings	Railroad Crossings
Lincoln, WY	3	1	1
Uinta, WY	0	1	0
Rich, UT	1	6	0
Cache, UT	2	6	0
Box Elder, UT	8	26	2
Elko, NV	5	9	0
Humboldt, NV	2	23	0
Washoe, NV	2	4	0
Lake, OR	1	18	1
Klamath, OR	0	5	0

1.1.2 Construction Traffic

The Project would temporarily increase traffic on local road networks due to construction employees commuting to and from work and trucks transporting equipment. Construction employees would likely be located within a 50-mile radius of the Project route and commute to and from the central contractor yard location for each spread. It is expected that during the construction phase, approximately 200 vehicles would be mobilized to support construction of the pipeline. These vehicles would be used to transport 100 equipment operators, 30 welders, 15 foremen, 25 miscellaneous workers, and 30 inspectors for each spread. Some of these vehicles would report to the contractor staging yard before proceeding to the ROW. However, many of them may depart directly from the location of their temporary lodgings. In addition, there would be six to eight buses for transporting other workers to the ROW. These workers would drive to the contractor staging yards and park their vehicles before embarking via bus to the ROW. An estimated 400 vehicles are expected to commute from surrounding areas to the contractor staging yards, and an estimated 200 vehicles plus six to eight buses are expected to go from either the place of lodging or the contractor staging yards to the pipeline ROW.

It is unknown how many vehicles workers will use to travel directly from their places of lodging to the work site. However, many of these vehicles are special use vehicles and may be owned by the construction worker(s). In some cases, these workers may be at the construction site in the morning prior to the main workforce arriving or may stay late after the main workforce has departed.

Vehicle movements would generally occur during the daylight hours, with primary movements occurring between 5:00 and 6:00 in the morning and at 6:00 in the evening. Typically, the work week is six days, sometimes extending to seven days as required by the workload and construction schedule. During boring, directional drilling, and hydrostatic testing, work would be conducted on a 24-hour basis until the drilling and testing is complete.

Vehicles would also be entering and leaving the contractor yard throughout the day. This would include construction management personnel, supply trucks, and vendors.

Compressor stations under construction and storage/staging yards would have some additional traffic associated with them. During construction, the four new compressor stations would be expected to have approximately 200 employee vehicles commuting to them on approximately the same schedule as the employees commuting to the contractor staging yards. Storage/staging yards would need a sufficient number of stringing trucks to make approximately 50 trips between the storage/staging yards and the pipeline ROW per day. This equates to an average progress rate of 8,000 feet per day. These storage/staging yards would be located within 50 miles of the pipeline ROW.

The locations of proposed contractor staging yards, storage/staging yards, compressor stations, the Vya Construction Camp, and proposed access roads are all depicted on the Project's route location maps. Within this Traffic Plan, Attachment A, Table A-1 lists the proposed access roads for the Project and includes information on road length, existing width, existing surface type and condition, and Ruby's proposed improvements. Attachment B, Figure B-1 gives an overview of the general locations of proposed contractor staging yards, storage/staging yards, compressor stations, and the Vya Construction Camp, which would fulfill the function of both construction worker housing and services and a contractor yard. This traffic analysis assumes that the Vya Construction Camp would produce the same amount of traffic as a contractor staging yard and associated worker housing.

Some access roads would need to be graded, bladed, or widened to allow for use by large trucks. In cases where a road is widened, its new width would not exceed 30 feet. Landowner or land management agency permission would be obtained prior to any rerouting or realigning of the road. Upon acceptance and inclusion of this POD and its appendices in the BLM right-of-way grant, Ruby will be authorized to undertake the proposed improvements, as needed, to access roads identified in Table-A-1 for those roads on federal lands. All road grading activities would be designed to minimize loss of any existing rock, minimize sediment runoff, and avoid the spread of noxious weeds.

Watering for dust control may be necessary during grading and hauling operations. On federal lands, all road improvements must be in accordance with agency handbooks and manuals, such as the BLM 9113 Roads Manual. At a minimum, roads should be constructed using the crown-and-ditch method. At completion of Project construction, all roads would be repaired and returned to their original status, meaning their original width and length, unless Ruby is directed otherwise in writing by the landowner or land management agency. If a completely new segment of road is temporarily constructed for the Project, it will be completely reclaimed at the end of the Project unless Ruby is directed otherwise in writing by the landowner or land management agency.

Depending on the quality of the road surface and amount of construction-related traffic, wear and tear impacts could occur to unpaved roads during Project construction. The access roads actively being used by construction crews would be inspected daily by Ruby and the construction contractor. If inclement weather conditions, such as heavy rains, affect an area, the roads would also be reviewed after the weather event. Vehicular use of unpaved roads would be temporarily halted in the case of excessively wet soil conditions. Ruby would make appropriate repairs to the roads during construction as needed. Road maintenance operations on USFS roads in the Fremont-Winema National Forest (FWNF) would comply with the "Road Maintenance Specifications for Fremont-Winema National Forests" December 2009 version. Grading activities on BLM lands are to occur at BLM discretion and may be required prior to use, after a storm event, and at completion of operations. Grading on BLM lands is to be confined to the existing road surface and prism, unless Ruby has received authorization from BLM to widen the road to up to 30 feet to accommodate construction equipment. The BLM may also require watering during grading and hauling operations and may provide specifications on the grading design.

Wear and tear impacts to paved surfaces would be minimal, and Ruby would ensure that roads are kept in an acceptable condition throughout the construction process. To limit wear and tear on the roads Ruby will adhere to all state and county vehicle weight limit regulations. Some states and counties have a general vehicle weight limit, while others have weight restrictions based on the particular road or bridge. Vehicle weight must also be taken into consideration in places where a road crosses a railroad track. Table 1.1-1 provides a list of various county and state level permits and regulations. In addition to adhering to all vehicle weight limits, Ruby would also adhere to regulations for the length, width, and height of vehicles or would acquire a special use permit or authorization. Appropriate road crossing permits would also be obtained.

As previously stated, at completion of construction, all roads would be repaired and returned to their original status, meaning their original width, length, and condition,

unless Ruby is directed otherwise in writing by the landowner or land management agency. Ruby would follow the procedures for access road reclamation described in Appendix E of the Plan of Development (POD), the Restoration and Revegetation Plans, and would follow dust abatement strategies described in Appendix N of the POD, the Fugitive Dust Control Plan. The BLM, Reclamation, Wyoming Game and Fish Department (WGFD), Utah Division of Wildlife Resources (UDWR), Nevada Department of Wildlife (NDOW), USFS's FWNF, and Oregon Department of Fish and Wildlife (ODFW) have all requested that improved roads on public lands be returned to their original status once the road is no longer needed by Ruby. Access road restoration includes grading, seedbed preparation (which involves decompacting the soil, recontouring, and replacing the topsoil), and seeding. Native seed mixes would be used on public lands, with appropriate seed mixes selected for the natural habitat based on ecological surveys along the access roads, input from the United States Department of Agriculture Natural Resources Conservation Service (USDA-NRCS), and input from the land management agencies. On private lands, the seed mix would be based on previous or adjacent land uses and approved by the landowner. Restored lands would be monitored for a minimum of five years to ensure successful revegetation. Additional monitoring would occur as necessary and agreed upon by Ruby and the land management agency or landowner. Throughout the restoration process, Ruby's Noxious and Invasive Weed Control Plan (Appendix H of the POD) would be followed.

The BLM Surprise Field Office requirements for access road reclamation on their lands are shown in Table 1.1-3.

Table 1.1-3 BLM Surprise Field Office Requirements for Access Road Reclamation

Road	Segment	Reclamation Code
H-19	~ Milepost (MP) 533.6	1
H-50	From MP 533.6 south of pipeline to intersection with H-52	1
H-50	South of intersection with H-52 (Cherry Springs)	3
H-52	From MP 532.5 to border of Sheldon National Wildlife Refuge (NWR)	3
H-53	Segment at Sheldon NWR, to south	2
H-50	(West) Sheldon NWR south (west of Cottonwood Canyon) to pipeline (MP 536)	2
W-1	South of pipeline (starts at MP 536; ends at MP 538)	2
W-2	(BLM) Start MP 541.2	1
W-2A	MP 542	1
W-3	(MP 543) Fuel break, seed mix ID in Reclamation Plan. At 0.5 mile south of intersection with CR 8A road should be returned to original state (1).	2, then 1
W-? (not numbered; see MP)	MP 546	1

Table 1.1-3 BLM Surprise Field Office Requirements for Access Road Reclamation

Road	Segment	Reclamation Code
W-4	Entire access road	1
W-4A	Entire access road	1
W-5	(MP 550). Road does not exist at present; would be a new road construction.	1
W-8	MP 557.7	1; Use within NCA "as is" with no improvement (see Section 1.1.6)
W-9	Entire access road	3
W-10	Entire access road	3
W-10A	Entire access road	3
W-14	Entire access road	2
W-14A	(Near MP 575) Intersection of W-14, W-14A, and W-15 on BLM	2
W-15	Transmission line road in Barrel Springs area	1

Legend to Reclamation Codes:

1 = Road returned to original state.

2 = Road returned to original two-track width. Within original width, left improved. Reclaim disturbed width.

3 = Road reduced to 14 to 18 feet, and within final width all construction improvements left in place. Reclaim the remaining disturbed areas.

The BLM Surprise Field Office Resource Management Plan restricts all traffic to existing roads, including 2-track roads. Any off road use, including off road use within the ROW during construction, will require a permit from the BLM Surprise Field Office.

The BLM Klamath Falls Resource Area has some specific concerns regarding the maintenance and reclamation of two sections of Willow Valley Road (Ruby Road K-3), if they are to be used for the Project. The first section is an approximately 4.12-mile long cindered portion located between the cattle guard at road MP 4.9 and the Klamath County Line at road MP 9.0. It is used for a variety of purposes, including timber hauling, public and private access, recreation, and agency administration. Administrative use is generally limited to only the dry months because the cinder surface will not withstand all-weather activities. It is anticipated that Ruby's use would extend beyond the typical season of use, thereby impacting the road. The second section is an approximately 6-mile section extending from Willow Valley Reservoir to road MP 4.9, where the cindered portion described above begins. The BLM recently invested money to improve this portion of the road.

To mitigate anticipated impacts from an extended period of use on the first section of road and heavy use of newly improved road on the second section, Ruby may move a rock crusher to the area and crush excess rock taken from the ROW to BLM specifications. The rock crushing operation will take place in a location that the BLM

agrees is appropriate with respect to cultural and environmental concerns. The BLM has an approved cinder rock pit in the vicinity that could be used if needed. As needed, Ruby may haul rock, limit use or use other appropriate methods to maintain the road in its current condition.

All vehicles associated with the Project would be parked within the Ruby Pipeline ROW or within the boundaries of the compressor station, staging yard, storage yard, contractor camp, or other Project area. Project personnel would not park their vehicles outside of designated areas without first obtaining permission from the landowner or land management agency. Also, Project personnel would not park vehicles and/or equipment overnight within 100 feet of a wetland or waterbody boundary (150 feet in Oregon) due to the potential for leakage. Project vehicles and/or equipment would also not be refueled within 100 feet of a wetland or waterbody or within 500 feet of a wetland on a BLM-administered land, unless the Environmental Inspector can find no reasonable alternative (such as due to the presence of large series of consecutive wetlands). In that situation, spill preventative measures such as secondary containment containers or absorbent material would be utilized during the refueling process.

In all Project areas, Ruby would place signs at appropriate locations to direct traffic around construction areas and to warn drivers of heavy truck traffic. All signs on BLM lands would have to be approved by the district BLM office. The BLM has specific signage conventions, such as the use of the color red to indicate that access is prohibited on a particular road and green to indicate that access is allowed. Also, the BLM requires all Project access roads to be marked with signs that have clear language (e.g., no acronyms) that the casual user will understand to mean that Ruby is using the road.

On USFS FWNF lands, Ruby has the responsibility of clearing any hazard trees along access roads or the ROW identified by Ruby or Ruby's contractors. If the timber is merchantable, Ruby may be assessed costs for the value of the timber. Ruby will also be assessed Road Use and Road Surface Replacement Fees, to be calculated by the USFS based on the volume of timber removed and the construction traffic tonnage. Bridges, culverts, and cattle guards along USFS roads are considered part of the road system for maintenance and damage policies.

Ruby has proposed the use of certain roads as "permanent" access roads, to be used infrequently throughout the lifetime of the pipeline for inspections and maintenance of Main Line Valves/Launcher Receiver Sites that are located on Federal lands that lie within the right-of-way. These roads are listed below in Table 1.1-4.

Table 1.1-4 Permanent Access Roads

Access Road	Length (feet)	County and State	Agency with Jurisdiction
LW-1	1,395	Lincoln County, WY	BLM Kemmerer District
LW-6	13,585	Lincoln County, WY	BLM Kemmerer District
LW-8	7,168	Lincoln County, WY	BLM Kemmerer District
LW-10A	344	Lincoln County, WY	BLM Kemmerer District
U-15	4,319	Uinta County, WY	BLM Kemmerer District
U-18	48,005	Uinta County, WY	BLM Kemmerer District
Road to Facility MLV-21	20,548	Elko County, NV	BLM Elko District
H-50	33,395	Humboldt County, NV	BLM Winnemucca District
W-15	61,126	Washoe County, NV	BLM Surprise District
L-19	24,618	Lake County, OR	USFS
K-3	54,985	Klamath County, OR	BLM Lakeview District
K-3B	1,331	Klamath County, OR	BLM Lakeview District
K-3	4,933	Klamath County, OR	USFS

1.1.3 Noxious Weeds

Use of roads can be a conduit for introducing invasive plant species to an area. Seeds or other propagules can be inadvertently transported by vehicles using the road, and the edge habitat at the side of the road provides a point of entry for the exotic invasive species (USGS 2007a). Once introduced, invasive species can spread away from the road, having an even greater impact on the surrounding habitat. Ruby has prepared a Noxious and Invasive Weed Control Plan (see POD Appendix H) that prescribes methods to prevent, mitigate, and control the spread of noxious weeds during and following construction of the Project. Ruby and its contractors would be responsible for carrying out the methods described in the plan, which was developed in consultation with a variety of state and federal agencies. As part of this plan, all gravel and borrow pit material applied on federal lands would be approved by that land management agency prior to use.

1.1.4 Dust Control

Fugitive dust can be generated from vehicle and motorized equipment movement on access roads. To minimize the generation of fugitive dust during Project construction activities, Ruby has developed a Fugitive Dust Control Plan (see POD Appendix N). This plan includes the following specific measures for controlling dust from vehicular use of access roads:

- Apply water one or more times per day to all affected unpaved access roads (when in use);

- Reduce vehicle speeds on all unpaved roads, and unpaved haul and access roads. Speed limits may be set on unpaved roads, where public speed limits have not already been established; and
- Clean up track-out and/or carry-out areas at paved road access points at a minimum of once every 48 hours.

1.1.5 Cultural Resources

Ruby has conducted cultural resource inventory surveys of all proposed access roads and has identified any known cultural resource sites that could potentially be impacted. Ruby would be required to prepare treatment plans for these sites, and the plans would be subject to review and approval by the appropriate cultural resource regulatory agencies as well as the landowner or land management agency holding the land with the cultural resource.

Ruby has prepared an Unanticipated Discoveries Plan for Cultural Resources (see POD Appendix J) for each state that provides guidelines in the event that cultural resources, including human remains, are discovered during the course of construction. The plans call for the monitoring of all construction and include specific protocols to be followed in the event of the discovery of cultural resources. Each plan contains procedures for stopping work, protecting the discovery, notifying the proper authorities, and consulting with the appropriate parties, which includes the appropriate cultural resource regulatory agencies as well as the landowner or land management agency holding the land with the cultural resource.

1.1.6 National Conservation Areas

The BLM uses the National Land Conservation System to protect lands with exceptional value. One type of conservation designation under this system is a National Conservation Area (NCA). An NCA is designated by Congress because of its scientific, cultural, ecological, historical, and recreational importance. The BLM must conserve, protect, enhance, and manage NCAs for the benefit and enjoyment of present and future generations.

The BLM Black Rock Field Office identified two proposed access roads within the Black Rock Desert - High Rock Canyon Emigrant Trails NCA. Proposed access road W-7 would traverse 3,540 feet of the NCA and cross the historic Applegate Emigrant Trail. Because of the impact, this would cause to the NCA and the historic trail, this access road has been removed from consideration. The second access road, W-8, traverses approximately 170 feet within the upper portion of the NCA and does not cross the Applegate Emigrant Trail. The BLM has indicated that Ruby may use road W-8 in "as is" condition with no improvements.

1.2 Traffic Analysis

An analysis of the existing road network in the vicinity of the Project area showed that all state-maintained roads are well under capacity (Table 1.2-1). Even with the addition of the proposed construction traffic, they would be under 50 percent capacity at peak hour, and most would be under 25 percent capacity at peak hour (see Table 1.2-1).

Table 1.2-1 Analysis of Relationship Between the Existing Road Network and Proposed Ruby Pipeline Construction Traffic Based on Compressor Stations, Construction Yards, and Storage/Staging Yards.*

Road	Highest 2007 AADT segment of road impacted	Functional classification and K-factor	Current Peak Hour Traffic Volume (AADT * K)	Pipeline Facilities Using this Road Segment	Estimate of Construction Traffic Peak Hourly Volume from these Sources	Estimate of Total Construction Traffic Added at Peak Hour	Total peak hourly volume during construction	Road composition	Peak Hourly Capacity (cars per lane per hour) Paved roads: 1900 passenger cars per hour per lane	Percent of Capacity Used including Construction Traffic
Wyoming Hwy 30/Route 12	3,000 (WY DOT ND)	Rural Principal Arterial (0.10) (WY DOT ND, USTRB 2000)	300	Roberson Creek CS	200	200	500	Paved two-lane	3,800	Under capacity—only at 13% of its capacity with construction traffic
Wyoming Hwy 89/Route 50, north of yard	7,600 (WY DOT ND)	Urban Principal Arterial (0.10) (WY DOT ND, USTRB 2000)	760	RTCY-CY1 (Evanston)- (Option 1 of 2) RFCYP-CY1 (Evanston)	200 208	408	1,168	Paved two-lane	3,800	Under capacity—only at 31% of its capacity with construction traffic
Wyoming Hwy 89/Route 50, south of yard	7,600 (WY DOT ND)	Urban Principal Arterial (0.10) (WY DOT ND, USTRB 2000)	760	RTCY-CY1 (Evanston)- (Option 2 of 2)	200	200	960	Paved two-lane	3,800	Under capacity—only at 25% of its capacity with construction traffic

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Road	Highest 2007 AADT segment of road impacted	Functional classification and K-factor	Current Peak Hour Traffic Volume (AADT * K)	Pipeline Facilities Using this Road Segment	Estimate of Construction Traffic Peak Hourly Volume from these Sources	Estimate of Total Construction Traffic Added at Peak Hour	Total peak hourly volume during construction	Road composition	Peak Hourly Capacity (cars per lane per hour) Paved roads: 1900 passenger cars per hour per lane	Percent of Capacity Used including Construction Traffic
Utah Route 13 South Limits Bear River	1550 (UT DOT 2007)	Rural collector (0.11) (UT DOT 2007, USTRB 2000)	170.5	RTCY-CY3 (Bear River) (Option 1 of 2)	200	200	370.5	Paved two-lane	3,800	Under capacity—only at 10% of its capacity with construction traffic
Utah Route 13 North Limits Corinne	1615 (UT DOT 2007)	Rural minor arterial and collector (0.11) (UT DOT 2007, USTRB 2000)	177.65	RTCY-CY3 (Bear River) (Option 2 of 2) RFCYP-CY3 (Bear River)	200 208	408	585.65	Paved two-lane	3,800	Under capacity—only at 15% of its capacity with construction traffic
Utah route 30 (east to I-84)	6,965 (UT DOT 2007)	Rural Principal Arterial (0.10) (assumption, USTRB 2000)	696.5	Wildcat Hills CS	200	200	896.5	Paved two-lane	3,800	Under capacity—only at 24% of its capacity with construction traffic
Utah Route 16 from Woodruff to WY border	1,680 (UT DOT 2007)	Rural Minor Arterial (0.11) (UT DOT 2007, USTRB 2000)	184.8	RTCY-CY1 (Evanston)- (Option 1 of 2) RFCYP-CY1 (Evanston)	200 208	408	592.8	Paved two-lane	3,800	Under capacity—only at 16% of its capacity with construction traffic

Table 1.2-1 Analysis of Relationship Between the Existing Road Network and Proposed Ruby Pipeline Construction Traffic Based on Compressor Stations, Construction Yards, and Storage/Staging Yards.*

Road	Highest 2007 AADT segment of road impacted	Functional classification and K-factor	Current Peak Hour Traffic Volume (AADT * K)	Pipeline Facilities Using this Road Segment	Estimate of Construction Traffic Peak Hourly Volume from these Sources	Estimate of Total Construction Traffic Added at Peak Hour	Total peak hourly volume during construction	Road composition	Peak Hourly Capacity (cars per lane per hour) Paved roads: 1900 passenger cars per hour per lane	Percent of Capacity Used including Construction Traffic
Utah Route 165 south	3750 (UT DOT 2007)	Rural Collector (0.11) (UT DOT 2007, USTRB 2000)	412.5	RTCY-CY2 (Hyrum) (RFCYP- CY2 (Hyrum)	400 208	608	1012.5	Paved two-lane	3,800	Under capacity—only at 27% of its capacity with construction traffic
Nevada route 225/ Mountain City Highway/ Sagecrest Drive	346 (NV DOT)	Rural Minor Arterial (0.11) (NV DOT 2007; USTRB 2000)	38.06	Wieland Flat CS RTCY-CY4 (Elko)	200 400	600	638.06	Paved two-lane	3,800	Under capacity—only at 17% of its capacity with construction traffic

Table 1.2-1 Analysis of Relationship Between the Existing Road Network and Proposed Ruby Pipeline Construction Traffic Based on Compressor Stations, Construction Yards, and Storage/Staging Yards.*

Road	Highest 2007 AADT segment of road impacted	Functional classification and K-factor	Current Peak Hour Traffic Volume (AADT * K)	Pipeline Facilities Using this Road Segment	Estimate of Construction Traffic Peak Hourly Volume from these Sources	Estimate of Total Construction Traffic Added at Peak Hour	Total peak hourly volume during construction	Road composition	Peak Hourly Capacity (cars per lane per hour) Paved roads: 1900 passenger cars per hour per lane	Percent of Capacity Used including Construction Traffic
Nevada Route 95	186 (NV DOT)	Rural Principal Arterial (0.10) (NV DOT 2007; USTRB 2000)	18.6	Desert Valley CS RTCY-CY6 (Hwy 95) RFCYP-CY5 (Winnemucca) RTVC	200 400 208 404	1208	1226.6	Paved two-lane	3,800	Under capacity—only at 32% of its capacity with construction traffic
Nevada Route 140	190 (NV DOT)	Rural Collector (0.11) (NV DOT 2007; USTRB 2000)	20.9	Desert Valley CS RTVC	200 404	600	620.9	Paved two-lane	3,800	Under capacity—only at 16% of its capacity with construction traffic
Oregon route 395	2,400 (OR DOT)	Rural principal arterial (0.10) (OR DOT 2007; USTRB 2000)	240	RFCYP-CY7 (Lakeview)	208	208	448	Paved two-lane	3,800	Under capacity—only at 12% of its capacity with construction traffic

Table 1.2-1 Analysis of Relationship Between the Existing Road Network and Proposed Ruby Pipeline Construction Traffic Based on Compressor Stations, Construction Yards, and Storage/Staging Yards.*

Road	Highest 2007 AADT segment of road impacted	Functional classification and K-factor	Current Peak Hour Traffic Volume (AADT * K)	Pipeline Facilities Using this Road Segment	Estimate of Construction Traffic Peak Hourly Volume from these Sources	Estimate of Total Construction Traffic Added at Peak Hour	Total peak hourly volume during construction	Road composition	Peak Hourly Capacity (cars per lane per hour) Paved roads: 1900 passenger cars per hour per lane	Percent of Capacity Used including Construction Traffic
Oregon route 39	4,200 (OR DOT)	Rural principal arterial (0.10) (OR DOT 2007; USTRB 2000)	420	RFCYP-CY8 (Klamath)	208	208	628	Paved two-lane	3,800	Under capacity—only at 17% of its capacity with construction traffic
Oregon Hwy 50--Klamath Falls- Malin Highway	6,700 (OR DOT)	Rural principal arterial (0.10) (OR DOT 2007; USTRB 2000)	670	RFCYP-CY8 (Klamath)	208	208	878	Paved one- and two-lane	1,900	Under capacity—only at 46% of its capacity with construction traffic

Table 1.2-1 Analysis of Relationship Between the Existing Road Network and Proposed Ruby Pipeline Construction Traffic Based on Compressor Stations, Construction Yards, and Storage/Staging Yards.*

Road	Highest 2007 AADT segment of road impacted	Functional classification and K-factor	Current Peak Hour Traffic Volume (AADT * K)	Pipeline Facilities Using this Road Segment	Estimate of Construction Traffic Peak Hourly Volume from these Sources	Estimate of Total Construction Traffic Added at Peak Hour	Total peak hourly volume during construction	Road composition	Peak Hourly Capacity (cars per lane per hour) Paved roads: 1900 passenger cars per hour per lane	Percent of Capacity Used including Construction Traffic
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For this analysis, the following assumptions are made:

- All compressor stations (CS) add 200 traffic at peak hour to the road segments leading to them.
- All routes to construction yards (RTCY) add 400 vehicles at peak hour. In some cases there are two options for routes to the construction yard. In this case, it was assumed that the vehicles were evenly split between the routes, resulting in 200 vehicles at peak hour per route. Such cases are noted in the chart.
- All routes from construction yards to pipe (RFCYP) add 208 vehicles at peak hour.
- All storage/staging yards (PY) add approximately four vehicles per hour (50 stringing truck trips per day divided by a 12-hr work day). Because four vehicles at peak hour is such a small addition (0.1% of a paved road's capacity), routes to and from storage/staging yards are not included in this table.
- The Vya Construction Camp is a combined construction yard and storage/staging yard. As such, it is assumed to produce the amount of traffic of both. The route to the Vya Camp (RTVC) adds 404 vehicles at peak hour, and the route from the Vya Camp to the pipeline (RFVCP) adds 212 vehicles at peak hour.

Key:

- AADT = Annual average daily traffic
- CS = Compressor Station
- CY = Construction Yard
- Hwy = highway
- NV DOT = Nevada Department of Transportation
- OR DOT = Oregon Department of Transportation

- SSY = Storage/Staging Yard
- RFVCP = Route from Construction Yard to Pipe
- RFVCP = Route from Vya Camp to Pipe
- RTCY = Route to Construction Yard
- RTVC = Route to Vya Camp
- UT DOT = Utah Department of Transportation
- WY DOT = Wyoming Department of Transportation

Although the roads surrounding the Project area are generally rural with a low volume of traffic, there are several large mining operations located in northern Nevada, and the roads leading to these mines can be congested at peak morning and evening hours. The mines in the proximity of the Project area are clustered in two areas: the Carlin trend and the Getchell trend. The Carlin trend is located west of the City of Elko, and the Getchell trend is located east of the city of Winnemucca (USGS 2007b).

The major mines in the Carlin trend are Newmont Mining Corporation's Carlin Trend mine and Barrick Gold Corporation's Goldstrike mine. Miners who work in the Carlin Trend mines live primarily in Elko and also in the City of Carlin. Both Newmont and Barrick provide bus transportation to their Carlin trend mines from Elko. The buses take Interstate-80 (I-80) west from Elko to Carlin, and then State Route (SR) 766 north from Carlin to access the mine sites. The employees who drive to the mines in their personal vehicles also take SR-766 north from Carlin. Each mine has about 18 buses running from Elko to and from the mine in the morning and evening, plus hundreds of employees commuting in personal vehicles on the same route. The route that personal vehicles take to the mine site can vary depending on the location of their residence, but generally it would be I-80 and SR-766. The morning commute is typically from about 5:30 to 8:30 am, with 5:30 to 6:30 am having the heaviest traffic. The evening commute is from about 4:30 to 8:30 pm (Harmon 2009; King 2009).

The major mines in the Getchell trend are Newmont's Twin Creeks mine, Newmont's Midas mine, and Turquoise Ridge, a Barrick/Newmont Joint Venture operated by Barrick. Miners who work in the Getchell trend live primarily in Winnemucca and in the Battle Mountain area. Both Newmont and Barrick provide bus transportation to their Getchell trend mines from Winnemucca. The buses take I-80 east from Winnemucca to Golconda, and then SR-789. At the end of SR-789, the road forks into two unpaved county roads. Vehicles going to Twin Creeks and Turquoise Ridge go one way at the fork, while vehicles going to Midas go the other. Twin Creeks has nine buses running this route, Turquoise Ridge has five buses and 17 company vans, and Midas has one bus and 10 company vehicles. Additionally, employees commuting in personal vehicles take this route. The morning commute for these mines ranges from about 3:30 to 6:30 am, and the evening commute ranges from about 4:00 to 6:30 pm (Ladie 2009; Ward 2009; Burner 2009).

Ruby is sensitive to the importance of SR-766 and SR-789 to the northern Nevada mining industry and will minimize or avoid potential impacts to traffic on these roads. State Route 766 lies in the proximity of proposed storage/staging yards 5 and 6 and is also a potential access route to the pipeline ROW. Storage/staging yards are only expected to generate 50 trips of traffic spaced throughout the entire 12-hour work day, so storage/staging yard traffic would not likely noticeably impact traffic on this road. Furthermore, these yards have an alternate route option of I-80 to SR-51. Construction traffic from contractor construction yards or compressor stations would not use SR-766, and the pipeline ROW does not cross SR-766.

State Route 789 would be used for commuting to proposed storage/staging yards 7 and 8 and also for hauling pipe from proposed storage/staging yard 9 to the pipeline ROW. As indicated above, storage/staging yards are only expected to generate 50 trips of traffic spaced out throughout the entire 12-hour work day, so storage/staging yard traffic would not likely noticeably impact this road. State Route 789 is not the route to any contractor construction yards or compressor stations. However, the pipeline ROW crosses route 789, and, to minimize traffic impacts, this would be a bored roadway crossing rather than an open-cut roadway crossing.

During the local permitting processes in Elko, Humboldt, and Washoe Counties transportation issues were discussed and addressed to the satisfaction of the counties. In addition Ruby signed ROW agreements with the major local mining companies and during negotiations traffic issues were discussed and addressed. On an as needed basis, Ruby will implement the following measures:

1. signage to identify approaching construction or access points;
2. daily review and cleanup of sediment deposits and pavement damage on roadways;
and
3. traffic control personnel in areas of lane closures or heavy traffic.

2.0 Transportation Related to Construction Worker Housing and Access Roads on the Sheldon National Wildlife Refuge

This section addresses transportation related to the Construction Camp near Vya, Nevada and the worker lodging area near Lakeview, Oregon. In addition, Appendix C contains an analysis of the use of access roads in the Sheldon National Wildlife Refuge.

2.1 Vya Construction Camp

The Vya Construction Camp is located at a crossroads of Washoe County Road (CR) 34, which runs north-south, and Washoe CR 8A, which runs east-west. Both CR 34 and CR 8A are unpaved, gravel roads traversing active rangeland, and in some areas roads may be unfenced. To the west of Vya, at the California border, CR 8A becomes California State Route (SR) 299. California SR 299 is a paved two-lane road that can be taken west to reach the community of Cedarville in Modoc County, California. East of Vya, CR 8A crosses into the Sheldon National Wildlife Refuge and connects to Nevada SR 140, which traveling east connects to U.S. Highway 95 north of Winnemucca, NV.. Washoe CR 34 runs south from Vya to the community of Gerlach in Washoe County, Nevada. From Gerlach, Nevada SR 447 leads south to Interstate 80 and Reno, Nevada. Nevada SR 447 is a paved, two-lane road, and Interstate 80 is a paved, four-lane road. The eastern Modoc County communities of Eagleville, Cedarville, Lake City, and Fort Bidwell are connected through the Surprise Valley Road, which runs from the southern county line north to the Oregon border. In addition to these major roads, there is a network of local gravel and dirt roads in the vicinity of the Vya Construction Camp.

The Vya Construction Camp would provide housing and accommodations to support the construction workforce in this vicinity and would serve as a contractor staging yard. Vehicle use at the Vya Construction Camp will be primarily construction workforce personal vehicles and supply trucks. The construction workforce would drive their personal vehicles to the Vya Construction Camp at the commencement of the Vya construction spread, and their vehicles would remain parked at the camp until the completion of the spread, except for an occasional trip off site during non-working days.

Vehicle movements would generally occur during the daylight hours, with primary movements occurring between 5:00 and 6:00 in the morning and at 6:00 in the evening. The construction workforce would primarily reach Vya from Interstate 80 in Nevada by taking Nevada SR 447 north for approximately 80 miles to Washoe CR 34, then Washoe CR 34 north for approximately 85 miles to Vya. This is expected because the construction spreads

run from east to west, so the workers who have been on the Project will be coming primarily from the east, from Washoe and Humboldt counties in Nevada. There is a potential that some workers may come to Vya from California out of Cedarville or Alturas. In this case, California SR 299 through Alturas would be used in combination with Washoe County Route 8A and Route 34. However, because only a low volume of workers are expected to use this route and they would primarily use it for one-time transportation to Vya or an occasional trip during non-working days, this additional traffic would not be disruptive to California SR 299. It is estimated that weekly, there would only be 40 vehicular trips on Route 299. The trip from Alturas, California to the Vya Construction Camp would cover 32 miles and take approximately one hour and 20 minutes travel time. Once the workforce is at Vya, six to eight buses would be used to transport pipeline laborers from the camp to the pipeline ROW on a daily basis. The pipeline ROW is located east and north of the Vya Construction Camp and would be accessed via an approximately 10-mile segment of Washoe CR 8A. In addition, specialty workers such as welders and inspectors would drive their personal trucks from the camp to the ROW using the same segment of Washoe CR 8A. These specialty workers will add 50 to 60 additional vehicles to Washoe CR 8A.

Delivery trucks with pipeline equipment and supplies for the construction camp would come from Reno, Nevada. These trucks would take Interstate 80 east from Reno to West Fernley, then Nevada SR 447 north to Gerlach, then Washoe CR 34 north to Vya.

The busiest segment of Nevada SR 447 along the route to Vya has an AADT count of 426 (NV DOT 2007). According to industry standard (the Highway Capacity Manual), the peak hourly capacity of a paved road is assumed to be 1,900 cars per hour per lane. Therefore, as a paved two-lane road, Nevada SR 447 has a peak hourly capacity of about 3,800 cars per lane per hour. With a current AADT of 426, Nevada SR 447 can be estimated to currently have a peak hour traffic volume of 42.6 cars per lane per hour and is therefore at about 1% of its capacity. Even if trucks carrying supplies to the Vya Construction Camp added 400 vehicles at peak hour, Nevada SR 447 would still only be at 12 percent of its capacity.

Nevada SR 447 does, however, receive a much higher than normal volume of traffic during the Burning Man Festival, an annual event that is held the week prior to and including Labor Day weekend (Black Rock City, LLC n.d.a.) The Burning Man Festival occurs in Nevada's Black Rock Desert, approximately 63 miles southeast of Vya. It attracted over 49,000 participants in 2008 (Black Rock City, LLC n.d.b). Participants may travel to Burning Man in their personal and rental cars and RVs, by carpooling with other festival attendees from a Burning Man Rideshare Base in Reno, or by reserving a place on a shuttle bus. Most participants, including those who fly into the Reno airport and those coming from the east, west, or south, reach the Black Rock Desert via Interstate 80 to the West Fernley exit, then Nevada SR 447 north to Gerlach, then Washoe CR 34 to the Black Rock Desert. These participants use the full 80 miles of Nevada SR 447 that Ruby would be using, plus about

eight miles of the southern portion of Washoe CR 34, to reach the Black Rock Desert playa entrance. Some Burning Man participants come from the north and may use California SR 299 through Alturas and then Washoe CR 34 south for about 75 miles.

Ruby is cognizant of the cumulative traffic impact with Burning Man. In 2010, The Burning Man Festival will run from August 30 to September 6. Based on the current construction schedule, the Vya Camp will be in transition from one construction company to another. Ruby plans to have more than 500 people working out of Vya, with about 75 people scheduled to arrive during the week, and the construction company Rockford Pipelines would have about 100 people left at Vya, slowly filtering out during this time period. Ruby's contribution to the traffic would be small compared to The Burning Man Festival, and Ruby would avoid scheduling all of the construction workers to enter or leave the site in one mass migration.

As with all other Project areas, Ruby would place signage to indicate heavy truck traffic at appropriate locations near Vya. The local roads typically have an average daily traffic count of less than 200 vehicles a day. In all cases, traffic impacts from the worker camp would be temporary and would be conducted within the bounds of local permits and guidelines. Potential impacts to local traffic patterns in the area would vary depending on the number of workers at the camp, timing, and construction activity. These impacts would be temporary and would be conducted within the bounds of local permits and guidelines and as permitted by local landowners.

During the construction period, Ruby would inspect roads periodically and repair them, as needed. Depending on the quality of the road surface, impacts could occur to gravel or dirt roads during the camp operation. Roadways surrounding the Vya Construction Camp typically have limited use and would experience intensive use during the construction period, which might result in surface impacts on gravel and dirt roads. No road improvements are required prior to establishing the Vya Camp and starting construction. In addition, addressing maintenance issues as they arise rather than waiting until the end of the Project would prevent small issues from developing into more extensive road damage. At completion of the Project, Ruby would restore all roads back to their original status, unless Ruby is directed otherwise in writing by the landowner or land management agency.

2.2 Lakeview Lodging Facility

The proposed location of the worker temporary housing facility is in on private land in Lake County, Oregon, west of the city limits of the Town of Lakeview. The site is bordered on the north by an easement for Center Street and is located approximately 1,200 feet south of Highway 140. It is bordered on the east by Roberta Avenue and to the south by 3rd Street. Ruby would install temporary housing that would have ingress and egress from the site from a graveled road off of Roberta at the northern side of the development and a paved road off of Roberta Avenue entering the center of the Project site. The paved road would extend

through the center of the Project site, with gravel roads providing access to the modular housing units. Parking would be provided adjacent to the modular housing units.

The temporary housing facility would have a peak capacity for 350 construction workers, foremen, and other associated personnel. During the morning, the workers would generally leave the housing facility between the hours of 5:00 a.m. and 7:00 a.m. They would carpool to the contractor yard in Lakeview, from which they would be bussed or carpooled to the Project work site. A small number of specialized technical personnel, inspectors, and foremen would drive directly to the Project work site. During the evening hours, it is expected that workers would be returning to the housing facility over an extended period of time, primarily between the hours of 5:00 p.m. and 9:00 p.m.

It is estimated that during the work day, approximately 130 vehicles would travel to and from the housing facility. All ingress and egress from the site would be onto Roberta Avenue, with the majority of vehicles turning left onto Roberta Avenue and traveling north to intersect with SR 140 and turning right to go into the City of Lakeview and the contractor yard. Some vehicles, primarily technical specialists in their individual vehicles, would turn right onto Roberta Avenue, left onto 3rd Street, and travel east until they intersect with SR 140, heading south to the Project site.

Roberta Avenue and SR 140 are both paved two-lane roads. Traffic counts on SR 140 at 0.1 mile east of Roberta Avenue indicate that SR 140 in this area has an AADT of 2,200 vehicles (ODOT 2009). This equates to a peak hour traffic volume of approximately 220 vehicles, which is less than 6% of the road's capacity. The estimated 130 vehicles are not expected to all travel at peak hour, but if they did, the road would be at approximately 9% of its capacity. Because SR 140 is well under capacity, traffic congestion is not expected.

3.0 References

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Chapter A
Attachment A: Access Roads

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
WYOMING						
LINCOLN COUNTY						
LW-1	King Compressor Road	24	Gravel	0.32	Gravel	Grade
LW-1B	Unnamed	0	Dirt	0.08	two-Track	Grade, Widen
LW-1C	Unnamed	15	Dirt	0.31	two-track	Grade, Widen
LW-1D	Unnamed	15	Dirt	0.22	Gravel	Grade, Widen
LW-1E	Unnamed	15	Dirt	0.03	Gravel	Grade, Widen
LW-3	Unnamed	8	Dirt	0.50	two-track	Grade, Widen
LW-4	Unnamed	8	Dirt	2.42	two-track	Grade, Widen
LW-5	Unnamed	0	Dirt	0.16	two-track	Grade, Widen
LW-6	Unnamed	0	Gravel	6.54	Good	Grade
LW-6A	Unnamed	8	Dirt	9.25	two-track	Grade, Widen
LW-6A1	Unnamed	8	Dirt	0.28	two-track	Grade, Widen
LW-6A2	Unnamed	8	Dirt	0.49	two-track	Grade, Widen
LW-6A3	Unnamed	8	Dirt	0.03	two-track	Grade, Widen
LW-6B	Unnamed	8	Dirt	0.09	two-track	Grade, Widen
LW-6C	Unnamed	8	Dirt	0.04	two-track	Grade, Widen
LW-7	Unnamed	8	Dirt	0.24	two-track	Grade, Widen
LW-8	Unnamed	8	Dirt	2.34	two-track	Grade, Widen
LW-9	Unnamed	8	Dirt	0.14	two-track	Grade, Widen
LW-10	Unnamed	8	Dirt	0.14	two-track	Grade, Widen
LW-10A	Unnamed	8	Dirt	0.10	two-track	Grade, Widen
LW-11	Unnamed	10	Dirt	1.67	two-track	Grade, Widen
LW-13	Unnamed	8	Dirt	1.69	two-track	Grade, Widen
LW-14A	Unnamed	8	Dirt	0.08	two-track	Grade, Widen
LW-14B	Unnamed	8	Dirt	1.00	two-track	Grade, Widen
LW-15	Unnamed	8	Dirt	1.05	two-track	Grade, Widen
LW-16	Unnamed	8	Dirt	0.95	two-track	Grade, Widen
LW-17	Unnamed	8	Dirt	2.83	two-track	Grade, Widen

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
LW-18	Unnamed	8	Dirt	0.40	two-track	Grade, Widen
LW-19	Unnamed	8	Dirt	0.81	two-track	Grade, Widen
LW-20	Unnamed	8	Dirt	2.92	two-track	Grade, Widen
LW-21	Unnamed	20	Gravel	6.48	Good	Grade
LW-21A	Unnamed	8	Dirt	0.04	two-track	Grade, Widen
LW-21B	Unnamed	0	Dirt	0.02	Potential Blade	Grade, Widen
LW-22	Unnamed	8	Dirt	0.93	two-track	Grade, Widen
LW-23	Unnamed	8	Dirt	2.82	two-track	Grade, Widen
LW-24	Unnamed	8	Dirt	0.35	two-track	Grade, Widen
LW-26	Unnamed	8	Dirt	0.29	two-track	Grade, Widen
LW-28	Unnamed	8	Dirt	0.34	two-track	Grade; also may only be used by light trucks with rubber tires in its current condition, and if impacts are noted due to unauthorized use then it must be rehabilitated
LW-30	Unnamed	24	Asphalt	0.19	Paved	Potential Blade
LW-40	Unnamed	16	Gravel	0.07	Good	Assume New
UINTA COUNTY						
U-1	Unnamed	24	Asphalt	4.89	Paved	Potential Blade
U-2	Unnamed	8	Dirt	0.10	two-track	Grade, Widen
U-3	Unnamed	8	Dirt	0.89	two-track	Grade, Widen
U-4	Unnamed	8	Dirt	0.74	two-track	Grade, Widen
U-5	Unnamed	8	Dirt	0.05	two-track	Grade, Widen
U-5A	Unnamed	8	Dirt	0.02	two-track	Grade, Widen
U-5B	Unnamed	8	Dirt	0.82	two-track	Grade, Widen
U-6	Unnamed	16	Gravel/Dirt	12.74	Good and Mostly two-track	Grade, Widen
U-7	Unnamed	8	Dirt	0.33	two-track	Grade, Widen
U-8	Unnamed	8	Dirt	0.55	two-track	Grade, Widen
U-10	Unnamed	8	Dirt	2.51	two-track	Grade, Widen

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
U-11	Unnamed	8	Dirt	0.63	two-track	Grade, Widen
U-12	Unnamed	8	Dirt	0.35	two-track	Grade, Widen
U-13	Unnamed	8	Dirt	0.58	two-track	Grade, Widen
U-14	Unnamed	8	Dirt	1.05	two-track	Grade, Widen
U-15	Unnamed	8	Dirt	1.70	two-track	Grade, Widen
U-16	Unnamed	8	Dirt	0.81	two-track	Grade, Widen
U-16A	Unnamed	8	Dirt	0.99	two-track	Grade, Widen
U-18	Unnamed	24	Gravel	14.67	Good	Potential Blade
U-18A	Unnamed	24	Gravel	8.83	Good	Potential Blade
U-19	Unnamed	16	Gravel/Dirt	6.66	Good and Partly two-track	Grade, Widen
U-20	Unnamed	8	Dirt	1.68	two-track	Grade, Widen
U-21	Unnamed	20	Gravel	1.60	Good	Grade
U-21A	Unnamed	8	Dirt	0.05	two-track	Grade, Widen
U-21B	Unnamed	8	Dirt	0.03	two-track	Grade, Widen
U-23	Unnamed	8	Dirt	0.19	two-track	Grade, Widen
U-24	Unnamed	10	Dirt	7.00	two-track	Grade, Widen
U-25	Unnamed	8	Dirt	1.82	two-track	Grade, Widen
U-26	Unnamed	8	Dirt	1.15	two-track	Grade, Widen
U-27	Unnamed	8	Dirt	0.60	two-track	Grade, Widen
U-28	Unnamed	8	Dirt	0.68	two-track	Grade, Widen
U-30	Unnamed	8	Dirt	0.31	two-track	Grade, Widen
U-31	Unnamed	8	Dirt	3.45	two-track	Grade, Widen
U-31A	Unnamed	8	Dirt	0.16	two-track	Grade, Widen
U-31B	Unnamed	8	Dirt	0.12	two-track	Grade, Widen
U-1WS	Unnamed	8	Dirt	0.18	two-track	Grade, Widen
U-2WS	Unnamed	24	Gravel	0.70	Good	Grade
U-3WS	Unnamed	20	Gravel	0.51	Good	Grade
UTAH						
RICH COUNTY						

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
R-1	Unnamed	16	Gravel	0.56	Good	Grade
R-1A	Unnamed	8	Dirt	0.50	two-track	Grade, Widen
R-2	Unnamed	16	Gravel/Dirt	2.94	Good and Partly two-track	Grade, Widen
R-2A	Unnamed	16	Gravel	4.27	Good	Grade
R-3	Unnamed	0	Dirt	0.21	two-track	Grade, Widen
R-5A	Unnamed	8	Gravel	1.53	two-track	Grade, Widen
R-5B	Unnamed	8	Dirt	0.08	two-track	Grade, Widen
R-5C	Unnamed	8	Dirt	0.11	two-track	Grade, Widen
R-5D	Unnamed	8	Dirt	0.07	two-track	Grade, Widen
R-5E	Unnamed	8	Dirt	0.02	two-track	Grade, Widen
R-5F	Unnamed	8	Dirt	0.58	two-track	Grade, Widen
R-7A	100 East County Road	0	Gravel	0.67	Good	Potential Blade
R-7B	Schulthess Lane	20	Gravel	0.51	Good	Potential Blade
R-7C	Unnamed	8	Dirt	0.09	two-track	Grade, Widen
R-8	Unnamed	8	Dirt	6.62	two-track	Grade, Widen
R-8A	Unnamed	8	Dirt	1.15	two-track	Grade, Widen
R-8B	Unnamed	16	Gravel	1.93	Good	Grade, Widen
R-8C	Unnamed	8	Dirt	0.15	two-track	Grade, Widen
R-8D	Unnamed	8	Dirt	0.08	two-track	Grade, Widen
R-8E	Unnamed	8	Dirt	0.06	two-track	Grade, Widen
R-8F	Unnamed	8	Dirt	0.06	two-track	Grade, Widen
R-8G	Unnamed	8	Dirt	0.09	two-track	Grade, Widen
R-8H	Unnamed	8	Dirt	0.04	two-track	Grade, Widen
R-8I	Unnamed	8	Dirt	0.02	two-track	Grade, Widen
R-8J	Unnamed	8	Dirt	0.22	two-track	Grade, Widen
R-9	Unnamed	8	Dirt	0.17	two-track	Grade, Widen
R-10	Unnamed	8	Dirt	0.31	two-track	Grade, Widen
R-11	Unnamed	8	Dirt	1.51	two-track	Grade, Widen
R-12	Unnamed	8	Dirt	0.35	two-track	Grade, Widen

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
R-12A	Unnamed	8	Dirt	0.46	two-track	Grade, Widen
R-12B	Unnamed	8	Dirt	0.25	two-track	Grade, Widen
R-12C	Unnamed	8	Dirt	0.09	two-track	Grade, Widen
R-13	Unnamed	8	Dirt	1.36	two-track	Grade, Widen
R-13A	Unnamed	8	Dirt	0.03	two-track	Grade, Widen
R-14	Unnamed	8	Dirt	0.09	two-track	Grade, Widen
R-15	Unnamed	8	Dirt	0.42	two-track	Grade, Widen
R-16	Unnamed	8	Dirt	1.62	two-track	Grade, Widen
R-17	Unnamed	8	Dirt	0.56	two-track	Grade, Widen
R-18	Unnamed	8	Dirt	0.21	two-track	Grade, Widen
R-19	Unnamed	16	Gravel	2.35	Good	Grade
R-19A	Unnamed	10	Dirt	3.82	two-track	Grade, Widen
R-20	Unnamed	8	Dirt	0.82	two-track	Grade, Widen
R-21	Unnamed	8	Dirt	4.97	two-track	Grade, Widen
R-22	Unnamed	8	Dirt	0.18	two-track	Grade, Widen
R-23	Unnamed	8	Dirt	0.15	two-track	Grade, Widen
R-24	Unnamed	8	Dirt	0.90	two-track	Grade, Widen
R-25	Unnamed	8	Dirt	0.53	two-track	Grade, Widen
R-26	Unnamed	8	Dirt	2.36	two-track	Grade, Widen
R-26A	Unnamed	8	Dirt	0.90	two-track	Grade, Widen
R-27	Unnamed	8	Dirt	0.18	two-track	Grade, Widen
R-27A	Unnamed	8	Dirt	0.07	two-track	Grade, Widen
R-1WS	Unnamed	8	Dirt	0.76	two-track	Grade, Widen
R-3WS	Unnamed	8	Dirt	0.01	two-track	Grade, Widen
R-4WS	Unnamed	8	Dirt	0.01	two-track	Grade, Widen
R-5WS	Unnamed	16	Gravel	1.11	Good	Grade, Widen
R-6WS	Unnamed	16	Gravel	0.07	Good	Grade, Widen
R-7WS	Unnamed	8	Dirt	3.35	two-track	Grade, Widen
CACHE COUNTY						

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
C-1	Unnamed	8	Dirt	7.53	two-track	Grade, Widen
C-1A	Unnamed	12	Gravel	0.20	two-track	Grade, Widen
C-1B	Unnamed	12	Gravel	0.15	Good	Potential Blade
C-1C	Unnamed	8	Dirt	0.24	two-track	Grade, Widen
C-1D	Unnamed	8	Dirt	0.05	two-track	Grade, Widen
C-1E	Unnamed	8	Dirt	0.24	two-track	Grade, Widen
C-1F	Unnamed	8	Dirt	1.96	two-track	Grade, Widen
C-2	Unnamed	8	Dirt	0.20	two-track	Grade, Widen
C-3	Unnamed	8	Dirt	0.37	two-track	Grade, Widen
C-5	Unnamed	16	Dirt	8.98	two-track	Grade, Widen
C-5A	Unnamed	8	Dirt	0.04	two-track	Grade, Widen
C-6	Unnamed	8	Dirt	0.60	two-track	Grade, Widen
C-7	Unnamed	8	Dirt	0.96	two-track	Grade, Widen
C-8	Unnamed	16	Dirt	0.34	two-track	Grade, Widen
C-9	Unnamed	8	Dirt	0.56	two-track	Grade, Widen
C-9A	Unnamed	8	Dirt	0.06	two-track	Grade, Widen
C-10	Unnamed	8	Dirt	0.03	two-track	Grade, Widen
C-11	Unnamed	8	Dirt	1.21	two-track	Grade, Widen
C-12	Miles Canyon Road	8	Gravel/Dirt	4.73	Good and Mostly two-track	Grade, Widen
C-12A	Unnamed	8	Dirt	0.42	two-track	Grade, Widen
C-13	Unnamed	8	Dirt	1.49	two-track	Grade, Widen
C-13A	Unnamed	0	Dirt	1.89	Potential Blade	Grade, Widen
C-13B	Unnamed	0	Dirt	0.62	Potential Blade	Grade, Widen
C-14	Unnamed	8	Dirt	1.53	two-track	Grade, Widen
C-14A	Unnamed	8	Dirt	0.25	two-track	Grade, Widen
C-14B	La Plata County Road	24	Asphalt/ Gravel	3.57	Good	Grade
C-14C	Unnamed	8	Dirt	0.03	two-track	Grade, Widen
C-15	Unnamed	8	Dirt	0.59	two-track	Grade, Widen
C-15A	South 1800 East	20	Gravel	0.65	Good	Grade

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
C-15A1	Unnamed	8	Dirt	0.11	two-track	Grade, Widen
C-16	Unnamed	8	Dirt	0.74	two-track	Grade, Widen
C-16A	11200 South County Road	24	Asphalt	0.14	Paved	Potential Blade
C-17	Unnamed	8	Dirt	1.33	two-track	Grade, Widen
C-18	Unnamed	8	Dirt	7.48	two-track	Grade, Widen
C-18A	Unnamed	8	Dirt	4.15	two-track	Grade, Widen
BOX ELDER COUNTY						
B1RMP	Unnamed	8	Dirt	0.17	two-track	Grade, Widen
B2RMP	Unnamed	8	Dirt	0.39	two-track	Grade, Widen
B3RMP	Unnamed	8	Dirt	0.10	two-track	Grade, Widen
B4RMP	Unnamed	8	Dirt	0.08	two-track	Grade, Widen
B5RMP	Unnamed	8	Dirt	0.04	two-track	Grade, Widen
B6RMP	Unnamed	8	Dirt	0.84	two-track	Grade, Widen
B7RMP	Unnamed	8	Dirt	0.12	two-track	Grade, Widen
B9RMP	Unnamed	8	Dirt	0.27	two-track	Grade, Widen
B10RMP	Unnamed	8	Dirt	0.29	two-track	Grade, Widen
B11RMP	Unnamed	8	Dirt	1.44	two-track	Grade, Widen
B-1	Unnamed	8	Dirt	2.20	two-track	Grade, Widen
B-1A	Unnamed	0	Dirt	1.63	two-track	Grade, Widen
B-1B	Unnamed	8	Dirt	0.59	two-track	Grade, Widen
B-1C	Unnamed	8	Dirt	0.52	two-track	Grade, Widen
B-1D	Unnamed	8	Dirt	0.15	two-track	Grade, Widen
B-1E	Unnamed	8	Dirt	0.41	two-track	Grade, Widen
B-1F	Unnamed	8	Dirt	1.60	two-track	Grade, Widen
B-1G	Unnamed	8	Dirt	0.08	two-track	Grade, Widen
B-1H	Unnamed	8	Dirt	0.10	two-track	Grade, Widen
B-1I	Unnamed	8	Dirt	1.16	two-track	Grade, Widen
B-1J	Unnamed	8	Dirt	0.46	two-track	Grade, Widen
B-1K	Unnamed	8	Dirt	0.05	two-track	Grade, Widen

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
B-2	Unnamed	8	Dirt	1.90	two-track	Grade, Widen
B-2A	Unnamed	8	Dirt	1.42	two-track	Grade, Widen
B-2B	Unnamed	8	Dirt	0.17	two-track	Grade, Widen
B-2D	Unnamed	8	Dirt	2.12	two-track	Grade, Widen
B-2D1	Unnamed	8	Dirt	0.63	two-track	Grade, Widen
B-2D2	Unnamed	8	Dirt	0.48	two-track	Grade, Widen
B-2D3	Unnamed	8	Dirt	0.01	two-track	Grade, Widen
B-2E	Unnamed	8	Dirt	0.16	two-track	Grade, Widen
B-2F	Unnamed	8	Dirt	0.30	two-track	Grade, Widen
B-2J	Unnamed	8	Dirt	0.12	two-track	Grade, Widen
B-2K	Unnamed	8	Dirt	0.05	two-track	Grade, Widen
B-2L	Unnamed	8	Dirt	0.23	two-track	Grade, Widen
B-2M	Unnamed	8	Dirt	0.36	two-track	Grade, Widen
B-2N	Unnamed	8	Dirt	0.24	two-track	Grade, Widen
B-2O	Unnamed	8	Dirt	0.07	two-track	Grade, Widen
B-2P	Unnamed	8	Dirt	0.28	two-track	Grade, Widen
B-2R	Unnamed	8	Dirt	0.06	two-track	Grade, Widen
B-2S	Unnamed	8	Dirt	0.02	two-track	Grade, Widen
B-3	Unnamed	8	Dirt	0.31	two-track	Grade, Widen
B-3A	Unnamed	8	Dirt	1.12	two-track	Grade, Widen
B-3B	Unnamed	8	Dirt	0.28	two-track	Grade, Widen
B-4	Hatch County Road N 2800 W	20	Gravel	4.48	Good	Grade
B-4A	Unnamed	8	Dirt	0.28	two-track	Grade, Widen
B-4B	N 3300 W County Road	16	Gravel	1.05	Good	Grade, Widen
B-4C	N 4000 W County Road	16	Gravel	1.20	Good	Grade, Widen
B-4D	Unnamed	8	Dirt	0.78	two-track	Grade, Widen
B-4E	Unnamed	8	Dirt	1.04	two-track	Grade, Widen
B-4F	N 4800 W County Road	16	Gravel	0.84	Good	Grade
B-4F1	N 4400 W County Road	10	Gravel	0.74	Good	Grade, Widen

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
B-4G	W 4300 N County Road	20	Gravel	0.39	Good	Grade
B-4H	W 4000 N County Road	20	Gravel	2.50	Good	Grade
B-4I	W 4000 N County Road	20	Gravel	0.59	Good	Grade
B-4J	Unnamed	8	Dirt	0.60	two-track	Grade, Widen
B-4K	Unnamed	0	Dirt	0.16	N/A	Create New
B-5A	Unnamed	8	Dirt	0.42	two-track	Grade, Widen
B-5B	Unnamed	8	Dirt	0.28	two-track	Grade, Widen
B-5C	Unnamed	8	Dirt	0.43	two-track	Grade, Widen
B-6A	N 6000 W County Road	20	Gravel	1.23	Good	Grade
B-6B	Unnamed	0	Dirt	0.22	two-track	Grade, Widen
B-6D	Unnamed	8	Dirt	1.75	two-track	Grade, Widen
B-7	N 7600 W County Road	20	Gravel	0.77	Good	Grade
B-8	Unnamed	16	Gravel	1.74	Good	Grade, Widen
B-9	Unnamed	16	Gravel	1.30	Good	Grade, Widen
B-9A	Unnamed	8	Dirt	0.34	two-track	Grade, Widen
B-9B	Unnamed	8	Dirt	0.03	two-track	Grade, Widen
B-10	W Evans N County Road (W 680)	20	Gravel	3.65	Good	Grade
B-11	Dump County Road	16	Dirt	0.42	Good	Grade, Widen
B-11A	Unnamed	8	Dirt	0.51	two-track	Grade, Widen
B-11B	Unnamed	8	Dirt	0.13	two-track	Grade, Widen
B-12	Unnamed	8	Dirt	0.49	two-track	Grade, Widen
B-12A	Unnamed	8	Dirt	0.57	two-track	Grade, Widen
B-12B	Unnamed	8	Dirt	0.31	two-track	Grade, Widen
B-12C	Unnamed	8	Dirt	0.09	two-track	Grade, Widen
B-12D	Unnamed	8	Dirt	0.07	two-track	Grade, Widen
B-13	Little Mountain Road	20	Gravel	0.73	Good	Grade
B-14	7000 N	20	Gravel	1.65	Good	Grade
B-14A	N 11600 W County Road	20	Gravel	1.01	Good	Grade
B-14B	Unnamed	8	Dirt	0.03	two-track	Grade, Widen

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
B-15	W 8040 N County Road	20	Gravel	0.62	Good	Grade
B-15A	Unnamed	16	Gravel	1.14	Good	Grade, Widen
B-15B	Unnamed	8	Dirt	0.98	two-track	Grade, Widen
B-16A	Unnamed	8	Dirt	1.78	two-track	Grade, Widen
B-16B	Unnamed	8	Dirt	0.12	two-track	Grade, Widen
B-16C	Unnamed	8	Dirt	0.05	two-track	Grade, Widen
B-16D	Unnamed	8	Dirt	0.08	two-track	Grade, Widen
B-16E	Unnamed	8	Dirt	0.08	two-track	Grade, Widen
B-17	Unnamed	8	Dirt	5.57	two-track	Grade, Widen
B-17A	Unnamed	8	Dirt	0.11	two-track	Grade, Widen
B-18	Faust Valley Road N	24	Asphalt	10.21	Paved	Potential Blade
B-18A	Unnamed	8	Dirt	0.69	two-track	Grade, Widen
B-18B	Unnamed	8	Dirt	0.03	two-track	Grade, Widen
B-18C	Unnamed	8	Dirt	0.27	two-track	Grade, Widen
B-18D	Unnamed	8	Dirt	0.14	two-track	Grade, Widen
B-19	N 18000 W County Road	20	Gravel	1.18	Good	Grade
B-20	N 18800 W County Road	8	Dirt	1.52	two-track	Grade, Widen
B-20A	11600 N County Road	20	Gravel	1.11	Good	Grade
B-21	Unnamed	8	Dirt	6.30	two-track	Grade, Widen
B-22	Unnamed	8	Dirt	0.23	two-track	Grade, Widen
B-23	Sunset Pass County Road	20	Gravel	16.59	Good	Grade
B-23A	7480 West Road/a.k.a. Salt Well	20	Gravel	15.09	Good	Potential Blade
B-24	Unnamed	8	Dirt	3.14	two-track	Grade, Widen
B-24A	Unnamed	8	Dirt	0.71	two-track	Grade, Widen
B-25	Unnamed	8	Dirt	4.31	two-track	Grade, Widen
B-26A	Unnamed	8	Dirt	0.15	two-track	Grade, Widen
B-26B	Unnamed	8	Dirt	0.11	two-track	Grade, Widen
B-27	Old Railroad Grade County Road	20	Gravel	10.61	Good	Grade
B-27A	Unnamed	8	Dirt	0.28	two-track	Grade, Widen

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
B-27B	Unnamed	20	Gravel	0.04	Good	Grade
B-27C	Unnamed	8	Dirt	0.77	two-track	Grade, Widen
B-28	W 13600 N County Road	16	Gravel	2.37	two-track	Grade, Widen
B-28B	Unnamed	8	Dirt	0.74	two-track	Grade, Widen
B-29	N 31600 W	16	Dirt	1.04	two-track	Grade, Widen
B-29A	Unnamed	8	Dirt	3.70	two-track	Grade, Widen
B-29B	Unnamed	8	Dirt	0.49	two-track	Grade, Widen
B-31	N Locomotive Springs County Road	20	Gravel	2.92	Good	Grade, Widen
B-32	Deep Creek Road	8	Dirt	1.70	two-track	Grade, Widen
B-33	Unnamed	8	Dirt	0.38	two-track	Grade, Widen
B-35	Wildcat County Road	12	Dirt	1.20	two-track	Grade, Widen
B-36	Unnamed	8	Dirt	0.19	two-track	Grade, Widen
B-38	Kelton County Road	20	Gravel	6.56	Good	Grade
B-38A	Baker Mountain Loop County Road	10	Dirt	0.99	two-track	Grade, Widen
B-39	Emigrant Trail County Road	16	Gravel	27.39	Good	Grade, Widen
B-39B	Unnamed	8	Dirt	0.81	two-track	Grade, Widen
B-40	Unnamed	8	Dirt	0.88	two-track	Grade, Widen
B-41	Unnamed	8	Dirt	0.06	two-track	Grade, Widen
B-41C	Unnamed	8	Dirt	0.02	two-track	Grade, Widen
B-41D	Unnamed	8	Dirt	0.01	two-track	Grade, Widen
B-42	Board Ranch County Road #13	20	Gravel	11.82	Good	Grade
B-42A	Unnamed	8	Dirt	0.02	two-track	Grade, Widen
B-45A	Unnamed	8	Dirt	0.04	two-track	Grade, Widen
B-45B	Unnamed	8	Dirt	0.10	two-track	Grade, Widen
B-45C	Unnamed	8	Dirt	0.03	two-track	Grade, Widen
B-45D	Unnamed	8	Dirt	0.03	two-track	Grade, Widen
B-46	Water Cress County Road	16	Dirt	0.07	two-track	Grade, Widen
B-46A	Unnamed	8	Dirt	0.07	two-track	Grade, Widen
B-47	Unnamed	8	Dirt	0.09	two-track	Grade, Widen

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
B-48	Unnamed	8	Dirt	0.07	two-track	Grade, Widen
B-49	Unnamed	8	Dirt	0.08	two-track	Grade, Widen
B-49A	Unnamed	8	Dirt	0.09	two-track	Grade, Widen
B-50	Unnamed	8	Dirt	0.07	two-track	Grade, Widen
B-50A	Unnamed	8	Dirt	0.03	two-track	Grade, Widen
B-50B	Pigeon Mountain Loop	8	Dirt	0.05	two-track	Grade, Widen
B-50C	Unnamed	8	Dirt	0.03	two-track	Grade, Widen
B-50D	Rabbit Springs Loop	8	Dirt	0.07	two-track	Grade, Widen
B-50E	Unnamed	8	Dirt	0.08	two-track	Grade, Widen
B-52	Mud Basin Springs County Road	16	Dirt	0.14	two-track	Grade, Widen
B-55	Grouse Creek County Road	24	Gravel	0.20	Good	Grade
B-56	Unnamed	8	Dirt	0.66	two-track	Grade, Widen
B-57	Unnamed	8	Dirt	0.15	two-track	Grade, Widen
B-59	Unnamed	8	Dirt	1.99	two-track	Grade, Widen
B-60	S Winter Cabin County Road	8	Gravel/Dirt	4.99	Good and Some two-track	Grade, Widen
B-60A	SW Winter Cabin County Road	8	Dirt	0.78	two-track	Grade, Widen
B-61	Unnamed	8	Dirt	3.69	two-track	Grade, Widen
B-62	Kilgore Basin County Road	8	Dirt	2.06	two-track	Grade, Widen
B-62A	Unnamed	8	Dirt	0.68	two-track	Grade, Widen
B-63	Unnamed	8	Dirt	0.17	two-track	Grade, Widen
B-1WS	Unnamed	8	Dirt	0.18	two-track	Grade, Widen
B-3WS	Unnamed	8	Dirt	0.10	two-track	Grade, Widen
B-4WS	Unnamed	8	Dirt	0.31	two-track	Grade, Widen
B-5WS	Unnamed	8	Dirt	0.61	two-track	Grade, Widen
B-6WS	Unnamed	8	Dirt	1.91	two-track	Grade, Widen
B-7WS	Unnamed	8	Dirt	0.97	two-track	Grade, Widen
B-8WS	Unnamed	8	Dirt	0.01	two-track	Grade, Widen
B-9WS	Unnamed	8	Dirt	0.47	two-track	Grade, Widen
B-10WS	Unnamed	8	Dirt	0.04	two-track	Grade, Widen

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
NEVADA						
ELKO COUNTY						
E-3B	Unnamed Road	8	Dirt	0.02	two-track	Grade, Widen
E-4	Unnamed Road - Communication Line	-	Gravel	26.59	Rough - Not Maintained	Blade
E-5	Unnamed Road	-	Gravel/Dirt	21.64	Improved - Not Maintained	Blade
E-6	Unnamed Road	-	Gravel/Dirt	11.12	Improved - Not Maintained	Blade
E-7	Unnamed Road	-	Gravel/Dirt	4.37	Improved - Not Maintained	Blade
E-7A	Unnamed	8	Dirt	0.49	two-track	Grade, Widen
E-8	Unnamed Road	-	Gravel/Dirt	4.56	Improved - Not Maintained	Blade
E-9	Winecup Ranch Road	0	Gravel	8.58	Improved - Maintained	Potential Blade
E-9A	Unnamed Road - 2 Track	0	Gravel	1.02		Blade
E-9B	Unnamed Road - 2 Track	0	Gravel	8.50		Blade
E-9C	Unnamed Road	8	Dirt	2.62	two-track	Grade, Widen
E-9D	Unnamed Road	8	Dirt	0.04	two-track	Grade, Widen
E-9E	Unnamed Road	8	Dirt	0.02	two-track	Grade, Widen
E-9F	Unnamed Road	8	Dirt	0.04	two-track	Grade, Widen
E-10	Unnamed Road	0	Gravel	23.33	Improved - Maintained	Blade
E-11	Unnamed Road- Communication Line	-	Gravel	9.97	Rough - Not Maintained	Blade
E-12	Unnamed Road	-	Gravel	10.09	Improved - Maintained	Blade
E-14	Unnamed Road - Communication Line	-	Gravel	14.73	Rough - Not Maintained	Blade
E-14A	Unnamed	8	Dirt	0.08	two-track	Grade, Widen
E-14B	Unnamed	8	Dirt	0.50	two-track	Grade, Widen
E-15	Unnamed Road - 2 Track	-	Gravel	3.05	Rough - Not Maintained	Blade
E-15A	Unnamed Road	8	Dirt	1.15	two-track	Grade, Widen
E-17A	Unnamed Road - 2 Track			5.04		Blade
E-17D	Unnamed Road - 2 Track			0.51		Blade
E-19	Unnamed Road-2 Track	8-10	Gravel	0.32	Rough - Not Maintained	Blade
E-20	Unnamed Road-2 Track	8-10	Gravel	0.56	Rough - Not Maintained	Blade
E-21	Unnamed Road-2 Track	8-10	Gravel	0.81	Rough - Not Maintained	Blade

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
E-22	Unnamed Road-2 Track	8-10	Gravel	1.61	Rough - Not Maintained	Blade
E-23	Unnamed Road -2 Track	8-10	Gravel	3.39	Rough - Not Maintained	Blade
E-25	Unnamed Road-2 Track	8-10	Gravel	6.50	Rough - Not Maintained	Blade
E-26	Unnamed Road	16-20	Gravel	9.50	Improved - Maintained	Blade
E-28	Unnamed Road	8-10	Gravel	0.29	Rough - Not Maintained	Blade
E-28A	Unnamed Road-2 Track	8-10	Gravel	2.22	Unimproved	Blade
E-29	Tule Ranch Road	16-20	Gravel	12.46	Improved- Maintained	Blade
E-29A	Unnamed Road-2 Track	8-10	Gravel	3.12	Unimproved	Blade
E-31	Unnamed Road	8-10	Gravel	11.91	Improved - Not Maintained	Blade
E-33	Tule Ranch Road	14-18	Gravel	3.97	Improved - Maintained	Potential Blade
E-34	Unnamed Road	10-12	Gravel/Dirt	0.40	Improved - Not Maintained	Blade
E-35	Unnamed Road-2 Track	8-10	Gravel	0.51	Unimproved	Blade
E-36	Unnamed Road-2 Track	8-10	Gravel	3.64	Unimproved	Blade
E-37	Unnamed Road-2 Track	8-10	Gravel	1.10	Unimproved	Blade
E-38	Unnamed Road -2 Track	8-10	Gravel	0.42	Unimproved	Blade
E-39	Unnamed Road -2 Track	8-10	Gravel	0.65	Unimproved	Blade
E-3A	Unnamed Road	40163	Gravel	0.44	Improved - Maintained	Blade, Maintain
E-40	Unnamed Road - Communication Line 2	8-10	Gravel	8.32	Unimproved	Blade
E-41	Unnamed Road - 2 Track	8-10	Gravel	0.18	Unimproved	Blade
E-42	Unnamed Road - 2 Track	8-10	Gravel	0.87	Unimproved	Blade
E-42A	Unnamed - 2 Track	8-10	Gravel	0.25	Unimproved	Blade
E-43	Unnamed Road-2 Track	8-10	Gravel	0.34	Unimproved	Blade
E-44	Unnamed Road- 2 Track	8-10	Gravel/Dirt	0.72	Unimproved	Blade
E-45	Maggie Creek Road	24-40	Asphalt/ Gravel	2.46	Improved - Maintained	Potential Blade
E-45A	Unnamed Road-2 Track		Gravel	1.55		Blade
E-45B	Unnamed Road-2 Track	8-10	Gravel	0.93	Unimproved	Blade
E-46	Unnamed Road-2 Track	8-10	Gravel	0.28	Unimproved	Blade
E-48	Unnamed Road	10-12	Gravel/Dirt	1.92	Improved - Not Maintained	Blade
E-48A	Unnamed Road-2 Track	10-12	Gravel/Dirt	4.70	Improved - Not Maintained	Blade

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
E-48B	Unnamed Road-2 Track	10-12	Gravel/Dirt	0.33	Improved - Not Maintained	Blade
E-48C	Unnamed Road-2 Track	8-10	Gravel/Dirt	5.17	Unimproved	Blade
E-48D	Unnamed Road-2 Track	8-10	Gravel/Dirt	0.31	Unimproved	Blade
E-48E	Unnamed Road-2 Track	8-10	Gravel/Dirt	0.25	Unimproved	Blade
E-48F	Unnamed Road - 2 Track	10-12	Dirt	1.45	Unimproved	Blade
E-49A	Unnamed Road -2 Track	10-12	Dirt	0.28	Unimproved	Blade
E-49B	Unnamed Road -2 Track	8-10	Dirt	0.30	Unimproved	Blade
E-49C	Unnamed Road -2 Track	10-12	Dirt	1.02	Unimproved	Blade
E-49D	Unnamed Road -2 Track	10-12	Dirt	0.17	Unimproved	Blade
E-49E	Unnamed Road -2 Track	8-10	Dirt	0.16	Unimproved	Blade
E-49F	Unnamed Road -2 Track	8-10	Dirt	0.20	Unimproved	Blade
E-50A	Unnamed Road -2 Track	10-12	Dirt	1.05	Unimproved	Blade
E-50B	Unnamed Road -2 Track	8-10	Dirt	0.23	Unimproved	Blade
E-50C	Unnamed Road -2 Track	8-10	Dirt	0.35	Unimproved	Blade
E-50D	Unnamed Road -2 Track	8-10	Dirt	0.34	Unimproved	Blade
E-50E	Unnamed Road -2 Track	8-10	Dirt	0.18	Unimproved	Blade
E-51	China Creek Road	10-12	Gravel/Dirt	0.39	Improved - Not Maintained	Blade
E-51A	Unnamed Road -2 Track	8-10	Dirt	0.26	Unimproved	Blade
E-51B	Unnamed Road -2 Track	8-10	Dirt	0.33	Unimproved	Blade
E-51C	Unnamed Road -2 Track	10-12	Dirt	0.17	Unimproved	Blade
E-52A	Unnamed Road -2 Track	10-12	Dirt	0.34	Unimproved	Blade
E-52B	Unnamed Road	12-14	Dirt	2.75	Unimproved	Blade
E-52C	Unnamed Road	12-14	Dirt	0.97	Unimproved	Blade
E-52D	Unnamed Road	12-14	Dirt	1.72	Unimproved	Blade
E-52E	Unnamed Road	12-14	Dirt	1.66	Unimproved	Blade
E-52F	Unnamed Road -2 Track	8-10	Dirt	0.25	Unimproved	Blade
E-52G	Unnamed Road -2 Track	8-10	Dirt	0.64	Unimproved	Blade
E-54A	Unnamed Road -2 Track	10-12	Dirt	1.20	Unimproved	Blade
E-54B	Unnamed Road -2 Track	8-10	Dirt	0.18	Unimproved	Blade

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
E-54C	Unnamed Road	12-14	Dirt	0.32	Improved - Not Maintained	Blade
E-54D	Unnamed Road	34-36	Gravel	0.12	Improved - Maintained	Blade
E-54E	Unnamed Road	18-20	Gravel/Dirt	0.03	Improved - Not Maintained	Blade
E-54F	Unnamed Road	28-30	Gravel	0.11	Improved - Maintained	Blade
E-57A	Unnamed Road	16-18	Dirt	0.09	Improved - Not Maintained	Blade
E-57B	Unnamed Road	12-14	Dirt	0.05	Unimproved	Blade
E-57C	Unnamed Road	12-14	Gravel/Dirt	0.07	Improved - Not Maintained	Blade
E-57D	Unnamed Road	12-14	Dirt	0.33	Unimproved	Blade
E-57E	Unnamed Road	12-14	Dirt	0.41	Unimproved	Blade
E-57F	Unnamed Road	12-14	Dirt	0.50	Unimproved	Blade
E-57G	Unnamed Road	12-14	Dirt	0.30	Unimproved	Blade
E-57H	Unnamed Road	8-10	Dirt	0.13	Unimproved	Blade
E-60A	Unnamed Road	12-14	Gravel/Dirt	0.03	Improved - Not Maintained	Blade
E-60B	Unnamed Road	12-14	Gravel/Dirt	0.02	Improved - Not Maintained	Blade
E-60C	Unnamed Road	16-18	Gravel	0.06	Improved - Maintained	Blade
E-61A	Unnamed Road	12-14	Dirt	0.03	Unimproved	Blade
E-2WS	Unnamed Road	8	Dirt	0.01	two-track	Grade, Widen
E-3WS	Unnamed Road	8	Dirt	0.10	two-track	Grade, Widen
HUMBOLDT COUNTY						
H-1A	Unnamed Road	12-14	Dirt	0.03	Unimproved	Blade
H-1WS	Unnamed Road	20-30	Dirt	5.540	Improved- Not Maintained	Blade
H-1B	Unnamed Road	12-14	Dirt	0.04	Unimproved	Blade
H-3A	Unnamed Road	12-14	Dirt	0.04	Improved - Not Maintained	Blade
H-4A	Burma Road	42-44	Gravel	0.03	Improved - Maintained	Blade
H-5A	Unnamed Road	12-14	Dirt	0.04	Unimproved	Blade
H-8	Pettit Ranch Road-aka Christensen Ranch Road	18-20	Gravel	0.73	Improved - Maintained	Blade
H-8WS	Unnamed Road	20-30	Gravel	2.878	Improved- Maintained	Blade
H-9	County Haul Road	20-24	Gravel	2.35	Improved - Maintained	Potential Blade

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
H-9WS	Unnamed Road- 2 Track	8-10	Dirt	83.43'	Unimproved	Blade
H-10	Soldiers Pass Road	10-12	Gravel/Dirt	8.81	Unimproved	Blade
H-15	Unnamed Road	16-20	Gravel	0.14	Improved - Not Maintained	Blade
H-16	Unnamed Road aka New Farm Road	18-20	Gravel	0.17	Improved - Maintained	Potential Blade
H-16A	Unnamed Road-2 Track	10-12	Gravel/Dirt	0.51	Unimproved	Blade
H-22	Unnamed Road	12-14	Asphalt/ Gravel	1.73	Improved - Not Maintained	Blade
H-22A	Unnamed Road	8-10	Gravel/Dirt	0.09	Unimproved	Blade
H-23	Unnamed Road	12-14	Gravel/Dirt	0.07	Improved - Not Maintained	Blade
H-24	Unnamed Road-2 Track	10-12	Gravel/Dirt	0.22	Improved - Not Maintained	Blade
H-24A	Unnamed Road-2 Track		Gravel/Dirt	0.31	Unimproved	Blade
H-25	Unnamed Road-2 Track	8-10	Gravel	0.72	Unimproved	Blade
H-26	Unnamed Road-2 Track	8-10	Gravel	0.59	Unimproved	Blade
H-26A	Unnamed Road-2 Track	8-10	Gravel	0.96	Unimproved	Blade
H-26B	Unnamed Road-2 Track	8-10	Gravel/Dirt	0.90	Unimproved	Blade
H-29	Unnamed Road - 2 Track	8-10	Gravel	0.35	Unimproved	Blade
H-30A	Unnamed 2 Track	10-12	Gravel	0.55	Improved	Blade
H-31	Unnamed Road-2 Track	8-10	Gravel	0.43	Unimproved	Blade
H-32	Unnamed Road-2 Track	8-10	Gravel/Dirt	0.83	Unimproved	Blade
H-34A	Unnamed Road-2 Track	8-10	Gravel	1.22	Unimproved	Blade
H-34B	Unnamed Road-2 Track	8-10	Gravel/Dirt	1.75	Unimproved	Blade
H-35	Unnamed Road-2 Track	10-12	Gravel/Dirt	0.14	Unimproved	Blade
H-36	Unnamed Road-2 Track	10-12	Gravel/Dirt	0.81	Unimproved	Blade
H-37A	Unnamed Road-2 Track	8-10	Gravel/Dirt	0.06	Unimproved	Blade
H-38	Unnamed Road-2 Track	8-10	Gravel/Dirt	5.46	Unimproved	Blade
H-38A	Unnamed Road-2 Track	8-10	Gravel	2.17	Unimproved	Blade
H-39	Unnamed Road-	14-16	Gravel/Dirt	2.23	improved	Blade
H-41	Unnamed Road-2 Track	8-10	Gravel/Dirt	0.31	Unimproved	Blade
H-42	Unnamed Road-2 Track	8-10	Gravel/Dirt	0.17	Unimproved	Blade
H-43	Unnamed Road - 2 Track	8-12	Gravel/Dirt	4.42	Unimproved	Blade

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
H-45	Unnamed Road - 2 Track	8-10	Gravel	4.41	Unimproved	Blade
H-45A	Unnamed Road - 2 Track	8-10	Gravel	1.18	Unimproved	Blade
H-46A	Unnamed Road 2 Track	10-12	Gravel	3.03	Unimproved - Rough	Blade
H-46B						
H-46C						
H-47	Unnamed Road-2 Track	10-12	Gravel/Dirt	1.81	Unimproved	Blade
H-48	Unnamed Road-2 Track	8-10	Gravel/Dirt	1.98	Unimproved	Blade
H-49	Unnamed Road-2 Track	8-10	Gravel	1.01	Unimproved	Blade
H-50	Unnamed Road-2 Track	10-12	Gravel	16.36	Unimproved	Blade
H-50A	Unnamed Road-2 Track	10-12	Gravel/Dirt	0.30	Unimproved	Blade
H-51	Unnamed Road-2 Track	8-10	Gravel	0.15	Unimproved	Blade
H-52	Unnamed Road-2 Track	8-10	Gravel	3.38	Unimproved	Blade
H-53	Unnamed Road-2 Track	8-10	Gravel	2.56	Unimproved	Blade
H-54	Unnamed Road-2 Track	8-10	Gravel	5.82	Unimproved	Blade
WASHOE COUNTY						
W-1	Unnamed Road-2 Track	8-10	Gravel	13.23	Unimproved	Blade
W-1A						
W-1B						
W-2	Unnamed Road-2 Track	8-10	Gravel	5.77	Unimproved	Blade
W-2A	Unnamed Road-2 Track	8-10	Gravel	0.06	Unimproved	Blade
W-3	Unnamed Road-2 Track	8-10	Gravel	5.51	Unimproved	Blade
W-3A	Unnamed Road-2 Track	8-10	Gravel	0.17	Unimproved	Blade
W-3B	Unnamed Road	14-16	Gravel	1.92	Improved - Not Maintained	Blade
W-4	Unnamed Road-2 Track	8-10	Gravel	0.93	Unimproved	Blade
W-4A	Unnamed Road-2 Track	8-10	Gravel	1.06	Unimproved	Blade
W-4WS	Unnamed Road	24-28	Gravel	1.809	Improved	Blade
W-5	Unnamed Road-2 Track	8-10	Gravel	0.69	Unimproved	Blade
W-8	Unnamed Road-2 Track	8-10	Dirt	0.51	Unimproved	None; use in "as is" condition
W-9	Powerline Road-2 Track	8-10	Dirt	13.87	Improved - Not Maintained	Blade

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
W-10	Unnamed Road-2 Track	8-10	Dirt	0.93	Improved - Not Maintained	Blade
W-10A	Unnamed Road-2 Track	8-10	Dirt	1.23	Improved - Not Maintained	Blade
W-14	Cow Camp Road	12-14	Gravel	3.77	Improved - Not Maintained	Blade
W-14A	Unnamed Road-2 Track			2.39		Blade
W-14B	Unnamed Road-2 Track	8-10	Dirt	0.13	Unimproved	Blade
W-15	Unnamed Road-2 Track	8-10	Gravel	13.22	Unimproved	Blade
W-15A	Unnamed Road-2 Track	8-10	Dirt	0.09	Unimproved	Blade
OREGON						
LAKE COUNTY						
CT-1	two-track NFR 024	8-10	Dirt	4.09	Unimproved	Blade
CT-1A	Unnamed Road - 2 Track	8-10	Dirt	0.25	Unimproved	Blade
CT-1B	Unnamed Road - 2 Track	8-10	Dirt	1.77	Unimproved	Blade
CT-2	two-track NFR 195	8-10	Dirt	1.74	Unimproved	Blade
CT2A	Unnamed Road - 2 Track	8-10	Dirt	0.41	Unimproved	Blade
CT-3	NFR 3910	18-24	Gravel	7.08	Improved - Maintained	Blade
CT-3A	Unnamed Road - 2 Track	8-10	Dirt	0.19	Unimproved	Blade
CT-4	NFR 016	14-16	Gravel	2.16	Improved - Maintained	Blade
CT-43	Unnamed Road - 2 Track	8-10	Dirt	0.11	Unimproved	Blade
CT-4A	Unnamed Road - 2 Track	8-10	Dirt	0.18	Unimproved	Blade
CT-5	NFR 023	14-16	Gravel	3.10	Improved - Not Maintained	Blade
CT-7	Unimproved Road two- track	12-14	Gravel	0.54	Improved	Potential Blade
CT-8	Unnamed Road two- track	8-10	Dirt	0.21	Unimproved	Blade
CT-9	Unnamed Road two- track	8-10	Dirt	0.40	Unimproved	Blade
CT-B	Unnamed		Dirt	0.09		Blade
CT-F	Unnamed		Dirt	0.35		Blade
CT-H	NFR 407	12-14	Dirt	0.10	Improved - Not Maintained	Blade
CT-10	Unnamed Road two- track	8-10	Dirt	3.00	Unimproved	Blade
CT-11	two-track NFR 345	8-10	Dirt	0.53	Unimproved	Blade
CT-12	Unnamed Road two- track	8-10	Dirt	0.44	Unimproved	Blade

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
CT-12	Unnamed Road two-track	8-10	Dirt	0.38	Unimproved	Blade
CT-14	Unnamed Road	10-12	Gravel/Dirt	0.10	Unimproved	Blade
CT-17	NFR 4017	12-24	Asphalt/Gravel	14.37	Improved - Maintained	Potential Blade
CT-20	Unnamed Road-2 Track	10-20	Dirt	0.86	Unimproved	Blade
CT-21	Unnamed Road two-track	8-10	Dirt	1.24	Unimproved	Blade
CT-22	NFR 407	12-14	Dirt	0.70	Improved - Not Maintained	Blade
CT-23	NFR 407	12-14	Dirt	0.26	Improved - Not Maintained	Blade
L-1A	BPA Powerline Access Road		Gravel		Improved	None
L-1B	Surveyor Spring/BLM Road 7112-00 -2 Track			3.62	Unimproved	Blade
L-1D	Unnamed Road-2 Track	8-10	Dirt	0.98	Unimproved	Blade
L-1E	Twelvemile Access Road-2 Track	8-10	Gravel/Dirt	0.10	Unimproved	Blade
L-1F	Unnamed Road-2 Track	8-10	Gravel/Dirt	1.30	Unimproved	Blade
L-3A	Robinson Ranch Rd	12-14	Gravel	4.35	Improved	Grade
L-3D	Twentymile/BLM Road 7132-00-2 Track	8-10	Gravel	0.88	Unimproved	Blade
L-4	NFR 019	20-22	Gravel	2.17	Improved - Maintained	Potential Blade
L-5	NFR 3915	14-18	Gravel	17.21	Improved - Maintained	Potential Blade
L-6	NFR 39-22	10-12	Gravel	3.02	Unimproved	Potential Blade
L-6A	NFR 016-2 Track	8-10	Gravel	0.25	Unimproved	Blade
L-6B	2 Track	10-14	Gravel	0.99	Improved	Blade
L-6C	2 Track	8-10	Gravel	0.06	Unimproved	Blade
L-7	NFR 3910	20-24	Asphalt	4.83	Improved - Maintained	Potential Blade
L-8	NFR 3915	20-24	Asphalt	0.68	Improved - Maintained	Potential Blade
L-9	NFR 3913	14-16	Gravel	1.60	Improved	Potential Blade
L-9A	NFR 037	10-12	Gravel	0.11	Unimproved	Blade
L-10	NFR 3922	14-16	Gravel	5.48	Improved - Not Maintained	Potential Blade
L-11	NFR 146	8-10	Gravel	0.25	Unimproved	Blade
L-11A	Unnamed Road-2 Track	8-10	Gravel	0.23	Unimproved	Blade
L-12	NFR 3913	12-14	Gravel	2.60	Improved	Potential Blade
L-12A	Unimproved Road-2 Track	8-10	Gravel/Dirt	3.51	Unimproved	Blade

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
L-12B	Unimproved Road-2 Track	8-10	Gravel/Dirt	0.19	Unimproved	Blade
L-12C	Unimproved Road-2 Track	8-10	Gravel/Dirt	0.73	Unimproved	Blade
L-12D	Unimproved Road-2 Track	8-10	Gravel/Dirt	0.93	Unimproved	Blade
L-14	Old Wells Road	10-12	Dirt	1.02	Unimproved	Blade
L-14A	Crane Creek Lane	10-12	Dirt	0.46	Unimproved	Blade
L-14B	Unnamed Road-2 Track	8-10	Dirt	0.16	Unimproved	Blade
L-15	NFR 412	10-12	Gravel	10.45	Improved - Not Maintained	Blade
L-15A	Unnamed Road-2 Track	8-10	Gravel	0.12	Unimproved	Blade
L-15B	Unnamed Road -2 Track	10-12	Gravel/Dirt	0.85	Improved	Blade
L-15C	Unnamed Road	10-12	Gravel/Dirt	0.40	Unimproved	Blade
L-15D	Unnamed Road	12-14	Gravel	6.04	Partially Improved	Blade
L-15E	Unnamed Road-2 Track	10-12	Gravel/Dirt	0.36	Unimproved	Blade
L-15F	Unnamed Road-2 Track	8-10	Gravel/Dirt	0.05	Unimproved	Blade
L-16	NFR 4020	12-14	Gravel	4.08	Improved - Not Maintained	Blade
L-17	NFR Dog Lake Lane	12-24	Asphalt/ Gravel	1.04	Improved - Maintained	Potential Blade
L-18	NFR 419	12-16	Gravel	1.68	Improved - Maintained	Potential Blade
L-19	NFR 4017	16-22	Gravel	6.70	Improved - Maintained	Potential Blade
L-19A	Unnamed Road-2 Track	10-12	Dirt	0.25	Unimproved	Blade
L-19B	Unnamed Road-2 Track	10-12	Dirt	0.26	Unimproved	Blade
L-19C	Unnamed Road-2 Track	8-10	Dirt	0.03	Unimproved	Blade
L-19D	Unnamed Road-2 Track	8-10	Dirt	0.10	Unimproved	Blade
L-20	NFR 407	12-14	Dirt	2.66	Improved - Not Maintained	Blade
L-20A	Unnamed Road-2 Track	10-12	Dirt	0.46	Unimproved	Blade
L-20B	Unnamed Road-2 Track	10-12	Dirt	0.61	Unimproved	Blade
L-20C	Unnamed Road-2 Track	10-12	Dirt	1.26	Unimproved	Blade
L-21	NFR 3940	12-14	Gravel	0.15	Improved - Not Maintained	Blade
L-22	NFR 016	16-20	Gravel	0.07	Improved - Maintained	Blade
KLAMATH COUNTY						
K-1	NFR 4017	20-24	Gravel	3.49	Improved - Maintained	Potential Blade

Table A-1. Access Roads for the Ruby Pipeline Project

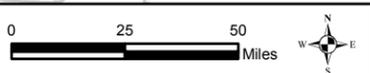
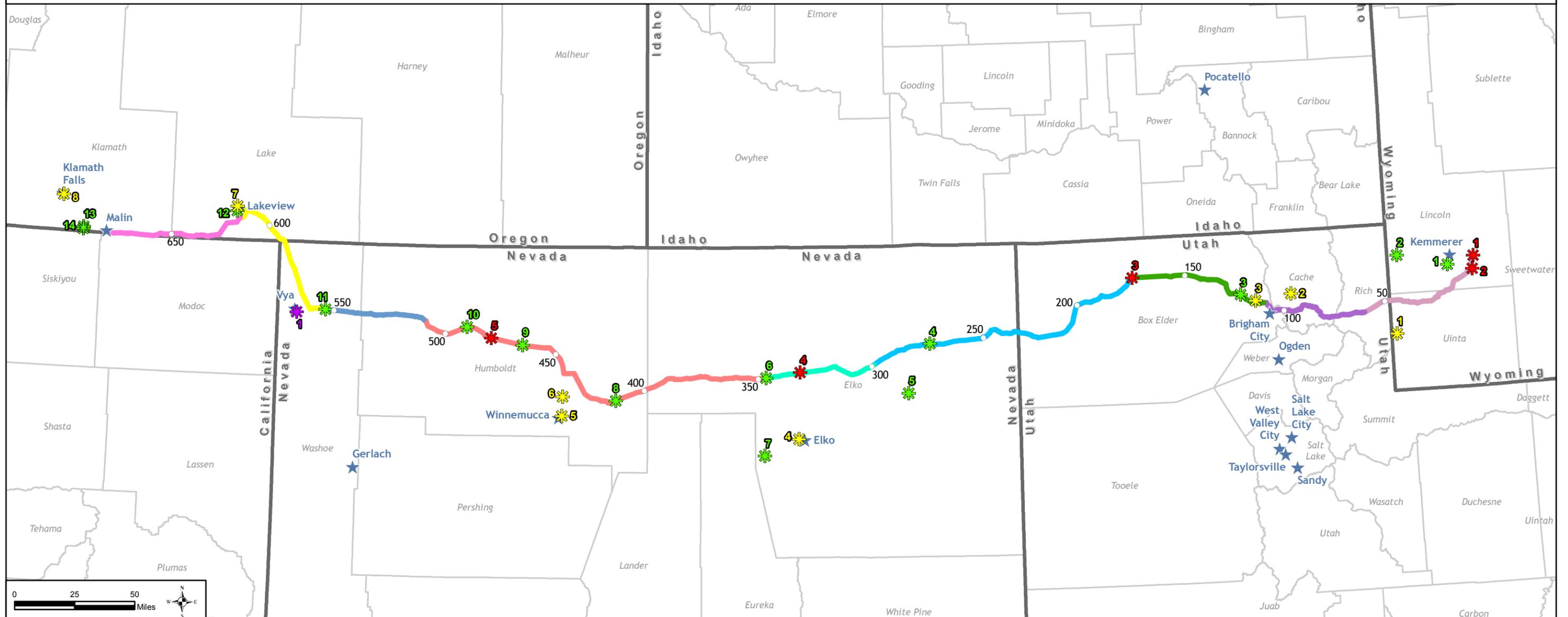
State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
K-1A	Unnamed Road-2 Track	8-10	Dirt	0.19	Unimproved	Blade
K-1B	Unnamed Road-2 Track	8-10	Dirt	0.25	Unimproved	Blade
K-1C	Unnamed Road-2 Track	8-10	Dirt	0.25	Unimproved	Blade
K-1D	Unnamed Road-2 Track	8-10	Dirt	0.36	Unimproved	Blade
K-1E	Unnamed Road-2 Track	8-10	Dirt	0.40	Unimproved	Blade
K-2	NFR 4017-224	14-16	Gravel	0.14	Improved	Blade
K-3	Willow Valley Road (#K 6188)	20-24	Gravel	16.09	Improved - Maintained	Replacement Gravel
K-3A	Unnamed Road-2 Track	8-10	Dirt	0.76	Unimproved	Blade
K-3B	Hopeless Pass Road	12-14	Gravel	0.26	Improved	Potential Blade
K-3C	Unnamed Road-2 Track	8-10	Dirt	0.02	Unimproved	Blade
K-3D	Unnamed Road-2 Track	8-10	Dirt	0.10	Unimproved	Blade
K-3E	Unnamed Road-2 Track	8-10	Dirt	0.05	Unimproved	Blade
K-3F	Unnamed Road-2 Track	8-10	Dirt	0.01	Unimproved	Blade
K-3G	Unnamed Road-2 Track	8-10	Dirt	0.02	Unimproved	Blade
K-8	Unnamed Road	20-24	Gravel	0.38	Improved	Blade
K-10E	Unnamed Road-2 Track	8-10	Dirt	2.52	Unimproved	Blade
K-10F	Unnamed Road-2 Track	8-10	Dirt	0.07	Unimproved	Blade
K-10G	Unnamed Road-2 Track	8-10	Dirt	1.22	Unimproved	Blade
K-11	Unnamed Road-2 Track	8-10	Gravel	0.19	Unimproved	Blade
K-11A	Unnamed Road-2 Track	8-10	Dirt	0.48	Unimproved	Blade
K-13	Unnamed Road-2 Track	10-16	Gravel	0.17	Unimproved	Blade
K-14A	Unnamed Road-2 Track	8-10	Dirt	0.08	Unimproved	Blade
K-14B	Unnamed Road-2 Track	8-10	Dirt	0.32	Unimproved	Blade
K-14C	Unnamed Road-2 Track	8-10	Dirt	0.18	Unimproved	Blade
K-14D	Unnamed Road-2 Track	8-10	Dirt	0.19	Unimproved	Blade
K-14E	Unnamed Road-2 Track	8-10	Dirt	0.26	Unimproved	Blade
K-14F	Unnamed Road-2 Track	8-10	Dirt	0.18	Unimproved	Blade
K-14G	Unnamed Road-2 Track	8-10	Dirt	0.63	Unimproved	Blade
K-14H	Unnamed Road-2 Track	8-10	Dirt	0.16	Unimproved	Blade

Table A-1. Access Roads for the Ruby Pipeline Project

State/County/ Access Road Number	Road Name	Existing Width (feet)	Existing Surface	Length (miles)	Existing Condition	Proposed Improvement
K-14I	Unnamed Road-2 Track	8-10	Dirt	0.16	Unimproved	Blade
K-14J	Unnamed Road-2 Track	8-10	Dirt	0.56	Unimproved	Blade
K-15A	Unnamed Road-2 Track	8-10	Dirt	0.16	Unimproved	Blade
CALIFORNIA						
MODOC COUNTY						
M-1	Hopeless Pass Road	12-14	Gravel	10.71	Improved	Blade
M-1A	Hopeless Pass Road	12-14	Gravel	1.92	Improved	Blade
M-2	Unnamed Road-2 Track	8-10	Dirt	1.11	Unimproved	Blade
M-3	Unnamed Road-2 Track	8-10	Dirt	0.71	Unimproved	Blade
M-4	Unnamed Road-2 Track	8-10	Dirt	0.64	Unimproved	Blade
M-5	Unnamed Road-2 Track	8-10	Dirt	0.71	Unimproved	Blade
M-6	Unnamed Road-2 Track	8-10	Dirt	0.94	Unimproved	Blade
M-7	Unnamed Road-2 Track	8-10	Dirt	0.38	Unimproved	Blade
M-9	Unnamed Road-2 Track	14-16	Gravel	1.74	Improved	Maintain
M-10	Unnamed Road	14-16	Gravel	1.78	Improved	Maintain
M-11	Unnamed Road-2 Track	10-16	Gravel	0.23	Unimproved	Blade
M-12	Unnamed Road-2 Track	8-10	Dirt	0.11	Unimproved	Blade
M-13	Unnamed Road-2 Track	8-10	Gravel	0.03	Unimproved	Blade

Attachment B: Construction Spreads

LABEL	NAME	LABEL	NAME	LABEL	NAME	LABEL	NAME
1	King Compressor Station	1	Evanston Contractor Construction Yard	1	Glenco Jct Pipe Storage Staging Yard	8	Midas Road Pipe Storage Staging Yard
2	Roberson Creek Compressor Station	2	Hyrum Contractor Construction Yard	2	Sage Jct Pipe Storage Staging Yard	9	Sod House Pipe Storage Staging Yard
3	Wildcat Hills Compressor Station	3	Bear River Contractor Construction Yard	3	Penrose Pipe Storage Staging Yard	10	Leonard Creek Pipe Storage Staging Yard
4	Wieland Flat Compressor Station	4	Wells Contractor Constuction Yard	4	Highway 93 Pipe Storage Staging Yard	11	Suprise Valley Pipe Storage Staging Yard
5	Desert Valley Compressor Station	5	Elko Contractor Construction Yard	5	Wells Pipe Storage Staging Yard	12	Lakeview 2 Pipe Storage Staging Yard
1	Vya Construction Camp/Staging Yard	6	Winnemucca Contractor Construction Yard	6	Maggie Creek Pipe Storage Staging Yard	13	Merril Pipe Storage Staging Yard
		7	Highway 95 Contractor Construction Yard	7	Carlin Pipe Storage Staging Yard	14	Merrill 2 Pipe Storage Staging Yard
		8	Lakeview Contractor Construction Yard				



○ Mile Post	Construction Spread	3	6	✳ Compressor Station	✳ Contractor Construction Yard	▭ State Boundary
★ City	1A	4A	7	✳ Construction Camp	✳ Pipe Storage Staging Yard	▭ County Boundary
	1B	4B				
	2	5				

Figure B-1
Construction Spreads
Contractor Construction and Pipe Yards

 February 2010
Ruby Pipeline Project
 Proposed Route (July 17, 2009)