

## **Appendix F**

### **Transportation Plan for the Big Pack Project Area**



**Access** From the town of Vernal, the BPPA would be accessed by traveling south on Highway 88 toward the town of Ouray. Near the confluence of the Green and White Rivers, Highway 88 turns into Seep Ridge Road. Seep Ridge Road (2810) provides access to the southwest corner of the BPPA. From Seep Ridge Road, the East Bench Road (4130) would be the primary access route within the BPPA.

As an alternative access route to the BPPA, the Operators may travel Highway 45 southeast to the Glen Bench Road (3260). From Glen Bench road, Bitter Creek Road (4120) would provide access to the northeast corner of the BPPA.

In addition to Seep Ridge, East Bench, Glen Bench, and Bitter Creek roads, Buck Camp Canyon, Bates Knolls, Hells Edge, East Sand Wash, and Izentrouble Wash would also provide access within the BPPA.

### **Existing Network**

The existing transportation system within the Project Area consists of approximately 72 miles of unpaved road that service existing oil and gas operations, grazing allotments, and provide access for dispersed recreational uses.

Approximately 22 miles of existing road are classified as “Class B” roads. Class B roads are maintained and improved by the Uintah County. An additional 41 miles of road are classified as “Class D” roads. Class D roads are included in the Uintah County transportation network but are not maintained by the County. Individual operators are responsible for maintaining all ROWs granted by the BLM.

### **Traffic Conditions**

Use of State highways is monitored by the Utah Department of Transportation (UDOT 2004). The latest traffic volume data are from 2004. County roads within the Project Area are monitored by the Uintah County Roads Department. The most recent data available are from 2005. All traffic data are expressed as average daily traffic (ADT). The ADT on the roads providing access to the Project Area are listed in **Table F-1** below.

**Table F-1. Average Daily Traffic to the Project Area**

<b>Road Name and Location</b>	<b>AADT</b>
State Highway 45 (South Bound to Power Plant)	1,195
Highway 88 (Southbound at Myton)	1,180
Glen Bench Road (South Bound from Highway 45)	1,198
Seep Ridge Road (South Bound @ Cattle Guard)	569

Source: UDOT 2004; Uintah County Roads Department 2006

### **Proposed Network Modifications**

Construction of up to 664 wells would require construction of approximately 64 miles of new access roads or upgraded two-tracks. All roads, including roads collocated with pipeline would be constructed with a 45-foot ROW.

The initial disturbance associated with the construction or new access roads or upgraded two-tracks would be approximately 355 acres. At the end of the construction phase, portions of access roads that are not needed for routine operations would be reclaimed in accordance with the

requirements of the appropriate SMA. All roads collocated with pipeline would be reduced to a 30 foot ROW.

Reclamation of the road would generally involve re-contouring the surface to the approximate natural contours, re-establishing soil conditions, and reseeding with a mixture approved by the appropriate SMA. Reclamation procedures would continue until the appropriate SMA determines that the reclamation has been successful.

Construction of roads on federal land would conform to standards described in the BLM publication *Surface Operating Standards for Oil and Gas Exploration and Development* also known as the "Gold Book." The conceptual access routes to particular well locations are depicted in **Figures 2-1, 2-2, and 2-3**; however, the exact location of roads would be determined and approved by the appropriate SMA at the time of the onsite inspection.

Constructed roads on federal land will be maintained as resource or local roads. The BLM will determine the appropriate maintenance standard for each new road.

A brief definition of each type of road follows.

#### Resource Road

Resource roads are single lane roads that carry a low volume of traffic at a low speed to individual well locations. Resource roads are generally reclaimed upon field abandonment.

#### Local Road

Local roads are designed as single or two-lane roads. The purpose of local roads is to provide access to a number of well locations. These roads generally connect with roads that already exist in the public road system. These roads may be reclaimed after field abandonment.

All roads required for the project would be maintained as necessary to provide all weather access. The Operator would be responsible for the maintenance of all BLM ROWs and would work with Uintah County regarding Class D Roads. Uintah County would be responsible for the maintenance of all Class B roads. Road maintenance is anticipated to occur once per year or more frequently if necessary. If roads become impassable, the BLM or Uintah County may deny access until the roads are repaired and the potential for resource damage is alleviated.

Enduring Resources would meet with the BLM and other appropriate surface owners and government agencies once every 5 years to review usage of existing access roads inside the project boundary.

### **Road Cut Ordinance**

Enduring Resources anticipates constructing approximately 292 well pads from which up to 664 wells could be drilled. Vehicle traffic would be the highest during the construction and drilling phase of the project. Actual traffic volumes would vary depending on the level of drilling activity, the specific operation that might be underway at a well pad and the maturity of the project at any particular time. For example, traffic would be higher during rig mobilization and lower during certain completion activities. For the purposes of this analysis it is assumed that construction and drilling activities would generate approximately 18 roundtrips per day per well.

Under the Proposed Action approximately 70 wells per year would be drilled in 2009 and 2010. Thereafter, approximately 50 wells would be drilled. Assuming that 70 wells would be drilled, an estimated 103 roundtrips would be generated on a daily basis. Assuming that 50 wells would be drilled per year 74 roundtrips would be generated on a daily basis. **Table F-2** provides a summary of how increased traffic would affect major access routes.

**Table F-2. Traffic Increases on Proposed Access Routes in the BPPA.**

<b>Road Name and Location</b>	<b>ADT</b>	<b>Proposed Action ADT (70 Wells)</b>	<b>Percent Increase</b>
<b>Primary Access Route</b>			
Highway 88 (South Bound at Myton)	1,180	103	8%
Seep Ridge Road (South Bound at Cattle Guard)	569	103	19%
<b>Alternative Access Route</b>			
State Highway 45 (South Bound to Power Plant)	1,195	103	8%
Glen Bench Road (South Bound from Highway 45)	1,198	103	8%

Once production begins, and for the remainder of the project's life, there would be minimal traffic associated with routine operations. At full development, Enduring Resources estimates that about 21 pumpers (each responsible for 32 wells) would be needed to maintain facilities on a daily basis. In addition, an average of six trucks per day would be needed to haul produced water and condensate from the BPPA.

**Disposition of Access Roads after Well Abandonment**

At the end of the productive life of each well, spur roads not claimed by Uintah County would be reclaimed as determined appropriate by the SMA. Reclamation of roads would generally involve re-contouring the surface to the approximate natural contours, re-establishing soil conditions, and reseeding with approved seed mixtures. Reclamation procedures would continue until the SMA determines that the reclamation has been successful.

**References**

Utah Department of Transportation (UDOT). 2004. Traffic on Utah Highways 2004. Utah Department of Transportation Systems Planning and Programming Division Traffic Analysis.

Uintah County 2006. Personal Communication with Uintah County Roads Department September 6, 2006.