Final Report

BIG HORN BASIN
TRANSPORTATION STUDY

July 31, 2007

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CHAPTER ONE
INTRODUCTION

1.1 PURPOSE

The purpose of this study is to provide Washakie County and regional economic developers in the Big Horn Basin with greater insights concerning potential truck backhaul opportunities in Washakie, Hot Springs, Big Horn and Park counties (Figure 1-1). This study was prompted by regional economic developers in the Big Horn Basin that concluded the potential availability of greater truck backhaul opportunities would help alleviate regional truck transportation costs for local businesses and reduce a potential constraint to future economic development in the Basin.

1.2 SCOPE

In order to address the question posed by regional economic developers, Chapter Two of this study initially examined the nature of truck transportation in the Big Horn Basin. This analysis evaluated existing surface transportation routes, truck transportation volumes, as well as the type of commodities, equipment and materials that are being transported to, within, and from the Big Horn Basin.

Chapter Three includes a brief review of several factors that influence the trucking industry in the Big Horn Basin. These factors included truck driver wages, truck insurance rates, the cost of diesel fuel, truck load prices, driver shortages, hours of service, as well as the present availability and use of backhauls.

The potential need for expanded truck backhauls was subsequently examined in Chapter Four to determine where the availability of backhauls would address current issues and potential economic development opportunities. These needs and opportunities were correlated with information provided by local, regional and national trucking companies.

Chapter Five of the Big Horn Transportation Study identified specific strategies for attracting or expanding truck backhauls in the Big Horn Basin. Each strategy provides a scope of tasks required to accomplish each strategy, a time frame for completion, anticipated budget, and the responsibility of implementation.

1.3 METHODOLOGY

The evaluation of existing truck transportation routes and truck transportation volumes relied upon available traffic estimates made by the Wyoming Department of Transportation. This information enabled the determination and mapping of primary truck transportation routes within the Big Horn Basin. The type of commodities, materials and equipment being shipped to and from the Big Horn Basin was determined through a review of available data for the Frannie Port of Entry that was made available by the Wyoming Highway Patrol.

Interviews with representatives of local, regional and national trucking companies in November and December 2006 provided further insights concerning truck transportation within the region. Roughly 100 trucking companies were initially identified for contact via telephone. Telephone contacts of these companies yielded informal conversations with approximately 52 local, regional and national trucking company representatives.
Big Horn Basin Transportation Study

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Big Horn Basin Study Area

Figure 1-1
Discussions with representatives of local, regional and national trucking companies identified various factors that influence trucking within the Big Horn Basin. These issues were further examined through a review of available data and analyses by the U.S. Federal Highway Administration, U.S. Bureau of Economic Analysis, U.S. Department of Energy, American Transportation Research Institute, and other reliable sources. The present availability of use of backhauls was derived from the interviews of trucking company representatives.

Potential needs and economic development opportunities that could be addressed through expanded truck backhauls was determined through discussions with regional economic developers in Big Horn, Hot Springs, Park and Washakie counties. Local economic developers in Washakie, Hot Springs, Big Horn and Park counties also placed articles in local newspapers during the first quarter of 2007 to encourage an expanded discussion of truck transportation issues.

The identification of recommended strategies to encourage greater truck backhauls in the Big Horn Basin was based upon analyses made in Chapters 2, 3 and 4. These strategies were coordinated with the regional economic developers in the Big Horn Basin to ensure the relevance of each strategy, confirm the availability of technical capacity, and identify potential financial resources that could be drawn upon for the implementation of recommended strategies.

1.4 CONSULTATION

Representatives of various private trucking companies and public agencies were consulted during the course of this study. These representatives included the following:

**Wyoming Department of Transportation**
Sherm Wiseman, Assistant Chief Engineer, Planning and Administration, Wyoming Department of Transportation, Cheyenne, WY

**Wyoming Highway Patrol**
Richard Smith, Wyoming Highway Patrol, Cheyenne, WY
Dennis Woodward, Frannie Port of Entry, Frannie, WY

**Trucking Companies and Truck Brokers Based in the Big Horn Basin**
John Anderson, Shell, WY (retired)
Charlotte Armstrong, Secretary, GK Construction Co., Lovell, WY
Danny Betsch, Manager, Swing Trucking Inc., Worland, WY
Rick Cook, Owner, Cook Moving and Storage, Cody, WY
Jenny Cramer, Vice President, Cramer Transportation Inc. and Brokerage, Powell, WY
Tonya Garcia, Partner Rickisha Trucking, LLC, Worland, WY
Ken George, Owner, Ken George Trucking, Powell, WY
Myrna Good, Secretary, Dan Brown Trucking, Greybull, WY
Laura Green, Laura Green Trucking, Lovell, WY
Leon Dumas, Owner, LD Trucking, Hamilton Dome, WY
Rodney Hayes, Owner, Custom Delivery Service Inc., Cody, WY
Heather, Secretary, North Park Transportation Co., Worland, WY
Larry Hill, Owner, Rolling Hills Trucking, Worland, WY
Larry Johnson, Owner, LJ Trucking, Powell, WY
Mitch Jones, President/Owner, Dick Jones Trucking, Powell, WY
Jannett King, President, LK Trucking Inc., Worland, WY
Karen Martin, RJ Trucking, Thermopolis, WY
Louis McCreery, Owner, CLM Trucking, Worland, WY
Rhonda McCaugin, President, Raven Enterprises Inc., Cody, WY
Tom McCauley, Owner, Thomas H. McCauley – TNT, Powell, WY
Louis Pfbrangle, President, Admiral Transport Corporation, Worland, WY
Sherilee Runyan, Co-Owner, Runyan Trucking, Otto, WY
Ryan Brothers Trucking Inc., Thermopolis, WY
Chris Schatz, Owner, C R Schatz Co., Worland, WY
Smith Oil Field Service Inc., Thermopolis, WY
Amy Trenk, Bookkeeper, R & C Trucking Inc., Thermopolis, WY
Dennett Tyra, Owner, Lost Horse Trucking, Greybull, WY
Mike Verdetto, Owner, MV Enterprises, Lovell, WY
Rick Wogoman, Cody, WY
Dean Wolvington, Owner, Big Horn Dispatch, Lovell, WY

Regional Trucking Companies
Booth Trucking, Billings, MT
Roy Cohee, C & Y Transportation Co., Casper, WY
John Corcoran, Owner, Corcoran Trucking, Billings, MT
Dean, Sales Manager, A to Z Tire and Battery Inc., Billings, MT
Fran, Owner, IBRB Trucking Inc., Ashland, MT
Yvonne Halpin, Vice President, Montana Transport Company, Billings, MT
Jim, Dispatch, Ankrum Trucking Inc., Billings, MT
Tara Labard, Broker, Hi-Ball Trucking Inc., Billings, MT
Marshall Lee, Transportation Manager, Hi-Ball Trucking Inc., Billings, MT
Steve Nelson Trucking Inc., Billings, MT
Shon Ostler, Sales and Operations, Granite Peak Transportation, LLC, Billings, MT
Rick, Dispatcher, American Driver Service Inc., Billings, MT
Rod, Manager, Dixon Bros Inc., Billings, MT
Dawn Ross, Brokerage Manager, AG Express, Billings, MT
Trimac Transportation UTI, Sheridan, WY
Wacker Sales, Hardin, MT

National Trucking Companies
Carry Beets, Operations Manager, USF Reddaway, Billings, MT
Bryant Cash, Driver Manager, Salt Lake City Office, Swift, Salt Lake City, UT
Marv Desel, Service Center Manager, Con-way Western Express, Billings, MT
Don, Logistics Dispatch, ABF Freight Systems Inc., Billings, MT
Doug, DTS Logistics, LLC, Billings, MT
Frank Molodecki, V.P. Operations, England Dedicated, Billings, MT
Skip, Roadway Express Inc., Billings, MT

Companies in Big Horn Basin Using Truck Transportation
Louis Pfbrangle, Admiral Beverage, Worland, WY
CHAPTER TWO
TRUCK TRANSPORTATION IN BIG HORN BASIN

2.1 GENERAL

Most of the regional trucking companies serving the Big Horn Basin are hauling products and commodities to and from the area from various parts of the continental United States. Most of the trucking company representatives contacted by Pedersen Planning Consultants indicated that their companies primarily handle truck loads originating in, or destined for, locations outside of the Big Horn Basin. Most of this truck traffic is traveling to and from the western United States via flat beds, dry vans and refrigerated trailers. The transportation of general freight and commodities within the Big Horn Basin is primarily associated with bentonite, wallboard, oil and gas, sugar and edible bean processing, and livestock industries.

The transportation network used by trucking companies serving the Big Horn Basin area includes both state and federal highways. While this network connects various destinations within the Big Horn Basin, these highway routes also connect the Big Horn Basin to markets and suppliers that are located throughout the United States and Canada.

In November and December of 2006, Pedersen Planning Consultants spoke with representatives of 52 trucking companies that are based or operate within the Big Horn Basin. Available data from the Wyoming Business Council, local telephone directories and regional economic developers suggest that, at least, 182 trucking companies serve the Big Horn Basin.

2.2 TRUCK IMPORTS AND EXPORTS

2.2.1 Intra-Basin Transportation

Much of the intra-basin trucking involves the delivery of extracted industrial minerals, e.g., bentonite and gypsum, to processing plants within the four-county area. In addition, some agricultural commodities, e.g., sugar beets and edible beans, are grown in various parts of the Big Horn Basin and processed at nearby processing plants.

**Bentonite**

For example, raw bentonite is mined outside of Ten Sleep, Greybull, Lovell and Powell and transported via belly or side dump trailers to milling facilities near Worland, Greybull and Lovell. Bentonite mills are operated by American Colloid, Bentonite Performance Minerals, Black Hills Bentonite Corp, Cetco, M-I LLC, and Wyo-Ben Inc. (Figure 2-1).

In Lovell, American Colloid primarily manufactures drilling mud. In contrast, other operations in the Big Horn Basin, e.g., Bentonite Performance Minerals near Lovell, primarily produce kitty litter products.

**Gypsum**

Gypsum quarries are operated by Georgia-Pacific south of Lovell in Big Horn County, as well as BHB Celotex near Cody in Park County (Figure 2-2). Both of these companies also operate wallboard plants that are situated in close proximity to the gypsum quarries. Consequently, the transportation of raw gypsum to the wallboard plants occurs within a very limited distance between quarries and their related processing facilities.
Figure 2-2

Legend
- Wall Board Plants
- Gypsum Quarry
- Big Horn Basin Study Area
- State Boundary
- Surface Water

Big Horn Basin Transportation Study
Gypsum Industry Locations
Big Horn Basin

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Sugar Beets

During fall harvest, a significant volume of trucks transport sugar beets from the fields of the Big Horn Basin to the Western Sugar processing plant in Lovell and the Wyoming Sugar Company factory in Worland (Figure 2-3). Wyoming Sugar Company produced 40,354 tons of sugar in 2003-2004 and 48,916 tons in 2004-2005 (Salzman, 2007). Western Sugar representatives indicated that its Lovell, Wyoming factory produced approximately 57,000 tons of sugar in 2003-2004 and 55,000 tons 2004-2005 (Bode, 2005).

Edible Beans

Another agricultural commodity that is transported from the field to processors within the Big Horn Basin is edible beans (Table 2-1). Trucks are used to haul harvested beans to bean processing facilities that are operated by Archer Daniel Midland in both Burlington and Garland (Figure 2-4). Once processed, most of the edible beans are transported to larger volume customers via rail.

Oil and Gas

Various oil and gas fields are situated in the Big Horn Basin (Figure 2-5). Crude oil and natural gas wells, as well as related gathering and pipeline systems, periodically require the delivery of pipe and other materials to support exploration and production activities. Trucking companies serving the oil and gas industry deliver materials and equipment to more remote exploration and production sites within the Basin.

### Table 2-1

<table>
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<tr>
<th>County</th>
<th>2004 (tons)</th>
<th>2005 (tons)</th>
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<tr>
<td>Big Horn</td>
<td>59,500</td>
<td>152,300</td>
</tr>
<tr>
<td>Hot Springs</td>
<td>25,900</td>
<td>16,000</td>
</tr>
<tr>
<td>Park</td>
<td>204,400</td>
<td>237,300</td>
</tr>
<tr>
<td>Washakie</td>
<td>19,700</td>
<td>36,700</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>309,500</strong></td>
<td><strong>442,300</strong></td>
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2.2.2 Truck Imports into the Big Horn Basin

The Big Horn Basin is rich in raw materials, but produces only a few types of finished goods. Most of the goods, materials and products that support agriculture, local construction, retail trade, as well as professional and technical services, are imported from locations that are situated outside of the Big Horn Basin (Cramer, 2006). Frannie Port of Entry Supervisor, Dennis Woodward indicated that inbound products to the Big Horn Basin primarily include gasoline, diesel and propane, food and grocery items and general merchandise (Woodward, 2006).

During years of abundant sugar beet harvests, producers in Montana will export some of their raw sugar beets to the sugar beet factor in Lovell (Woodward, 2006). Most of the trucking activity associated with the transportation of sugar beets is considered “re-hauling”. This type of transportation involves hauling harvested sugar beets from producer stockpiles to processing facilities.

There is also a variety of products that are being imported to the Big Horn Basin to support the operation of some local manufacturers and distributors. Admiral Beverage in Worland, for example, imports pallets, aluminum cans, Lipton and Pepsi products and other beverage inputs that are needed to produce and distribute Pepsi Cola and various Pepsi products to end markets (Pfrangle, 2006). Approximately 75 percent of Admiral Beverage’s product inputs are received from Pepsi Facilities in Ogden, UT.
Figure 2-3

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Big Horn Basin
Transportation Study

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Bean Production
Big Horn Basin Area

Legend
2005 Bean Production
Road Network
16,000 to 26,000 Tons
20,000 to 30,000 Tons
60,000 to 155,000 Tons
200,000, 240,000 Tons
ADM Processing Facility
Interstate Highway
U S Highway
State Highway
County Road
Surface Water
State Boundary
Federal Parks

Figure 2-4
Figure 2-5

Big Horn Basin Transportation Study

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Legend
Field Type
- Oil
- Gas
- Oil and Gas
Pipelines
- Gas
- Oil
- Towns
- Surface Water
- State Boundary
- Big Horn Basin Study Area
- Federal Parks

Big Horn Basin
Hot Springs
PARK
Washakie

Oil and Gas Fields
Big Horn Basin

Figure 2-5
2.2.3 Truck Exports from the Big Horn Basin

*Bentonite and Wallboard*

Many of the exported products that are trucked from the Big Horn Basin are derived from bentonite or gypsum, e.g., raw bentonite, wall board, drilling mud and other finished bentonite products, that are exported to various locations throughout the continental United States and Canada. Much of the milled bentonite product is transported north of Big Horn County via U.S. Highway 310 on flatbed trailers leaving Wyoming through the Frannie Port of Entry (Woodward, 2006).

A significant amount of the truck traffic along U.S. Highway 310 represents incoming empty trailers that are bound to bentonite mill facilities in the vicinity of Lovell, Greybull and Worland. Subsequently, these trucks transport the processed bentonite to markets north of Wyoming.

Various agricultural commodities are also exported from the Big Horn Basin via truck. These exports primarily include sugar beets, alfalfa hay, and livestock.

*Lime*

Wyoming Lime Producers, established in 1993, operates a limestone processing plant about one mile north of Frannie. The lime kiln at this facility converts limestone to a high calcium lime via a high-heat calcining process. Cooled lime is subsequently crushed to customer specifications and loaded onto rail cars or trucks for delivery to Basin Electric’s coal-based power plants. The lime is an important ingredient that is used to remove sulfur dioxide from stack emissions from coal-fired power plants and water treatment facilities in Wyoming, Montana, and North Dakota.

*Sugar Beets*

In 2004 and 2005, sugar beets were produced in three of the four counties in the Big Horn Basin (Table 2-2). The individual production in Big Horn, Park, and Washakie counties significantly surpassed sugar beet production in all other Wyoming counties.

Sugar beet production in the Big Horn Basin is transported to Western Sugar beet factory in Lovell and the Wyoming Sugar Company factory in Worland.

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<tr>
<th>TABLE 2-2</th>
<th>SUGAR BEET PRODUCTION IN THE BIG HORN BASIN 2004 AND 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>County</td>
<td>2004 (tons)</td>
</tr>
<tr>
<td>Big Horn</td>
<td>172,700</td>
</tr>
<tr>
<td>Hot Springs</td>
<td>0</td>
</tr>
<tr>
<td>Park</td>
<td>288,900</td>
</tr>
<tr>
<td>Washakie</td>
<td>204,200</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>665,800</strong></td>
</tr>
</tbody>
</table>

**Alfalfa Hay**

Farms and ranches in the Big Horn Basin produced 272,500 tons of alfalfa hay in 2004 and 287,300 tons in 2005 (Table 2-3).

The quality of alfalfa hay grown in the Big Horn Basin makes this an attractive product to dairy, horse and other markets in various parts of the United States. A survey of 424 alfalfa hay producers in the four-county area in 2005 indicated that roughly 55 percent of their total alfalfa crop was available for purchase if they could receive an acceptable price (Pedersen Planning Consultants, 2006). Consequently, a significant volume of this production is likely being transported from the Big Horn Basin via truck and being sold to customers in other regional areas within and outside of Wyoming.

**Livestock**

Approximately 173,000 cattle and calves (Table 2-4) were raised in the Big Horn Basin in 2006 (United States Department of Agriculture, 2007). Roughly 27,000 breeding sheep were also being maintained during the same year (Table 2-5). A significant portion of the calves produced by livestock producers were probably transported to finishing lots in Nebraska (Reetz, 2007). Other livestock producers sold cattle via video and the Internet (Baker, 2007).

**Timber**

Other items such as timber are exported from the Big Horn Basin on a seasonal basis (Woodward, 2006). During the summer months, timber is harvested in the mountains surrounding Meeteetse and Cody and hauled to sawmills, house log, and log furniture operations in Park County, Wyoming and Montana via Wyoming State Highway 120. Wyoming Department of Transportation officials occasionally set up temporary port-of-entry checkpoints on highway routes north of Cody to inspect incoming and outgoing traffic from these areas.

---

**TABLE 2-3**

<table>
<thead>
<tr>
<th>County</th>
<th>2004 (tons)</th>
<th>2005 (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big Horn</td>
<td>110,000</td>
<td>106,900</td>
</tr>
<tr>
<td>Hot Springs</td>
<td>22,500</td>
<td>30,600</td>
</tr>
<tr>
<td>Park</td>
<td>97,500</td>
<td>102,400</td>
</tr>
<tr>
<td>Washakie</td>
<td>42,500</td>
<td>47,400</td>
</tr>
<tr>
<td>Totals</td>
<td>272,500</td>
<td>287,300</td>
</tr>
</tbody>
</table>


**TABLE 2-4**

<table>
<thead>
<tr>
<th>County</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big Horn</td>
<td>50,000</td>
<td>50,000</td>
<td>51,000</td>
</tr>
<tr>
<td>Hot Springs</td>
<td>23,000</td>
<td>24,000</td>
<td>26,000</td>
</tr>
<tr>
<td>Park</td>
<td>54,000</td>
<td>52,000</td>
<td>62,000</td>
</tr>
<tr>
<td>Washakie</td>
<td>33,000</td>
<td>31,000</td>
<td>34,000</td>
</tr>
<tr>
<td>Totals</td>
<td>160,000</td>
<td>157,000</td>
<td>173,000</td>
</tr>
</tbody>
</table>


**TABLE 2-5**

<table>
<thead>
<tr>
<th>County</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big Horn</td>
<td>9,500</td>
<td>9,500</td>
<td>7,000</td>
</tr>
<tr>
<td>Hot Springs</td>
<td>1,500</td>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Park</td>
<td>5,000</td>
<td>5,000</td>
<td>4,000</td>
</tr>
<tr>
<td>Washakie</td>
<td>11,500</td>
<td>12,500</td>
<td>14,000</td>
</tr>
<tr>
<td>Totals</td>
<td>27,500</td>
<td>29,000</td>
<td>27,000</td>
</tr>
</tbody>
</table>

Crude Oil

The Oregon Basin, which is situated in the Big Horn Basin, is one of the largest oil fields in Wyoming. A small portion of the crude oil that is extracted from the Big Horn Basin is transported by truck to markets within and outside of Wyoming. Representatives from several trucking companies in the Big Horn Basin reported to PPC that their companies regularly transport crude oil. Most of these companies are also involved in the delivery and transport of oil field equipment and support goods for the oil and gas industry.

Beverages

Pepsi products produced at the Admiral Beverage facility are shipped to markets throughout Wyoming and Montana, as well as to Rapid City, SD and Williston, ND (Pfrangle, 2006).

2.3 VOLUME OF BIG HORN BASIN TRUCK TRAFFIC

Available truck traffic data for 2000 through 2005 (Table 2-6) provides some insights concerning recent volumes of truck traffic along various highway segments in the Big Horn Basin. Additional information from the Frannie Port of Entry also indicates the volume of truck traffic that is heading to and from Montana and other locations north of Wyoming, as well as the type of cargo being carried (Table 2-7). Unfortunately, this data does not distinguish the number of inbound and outbound trucks from the total number of trucks passing through the Frannie Port of Entry.

<table>
<thead>
<tr>
<th>Route</th>
<th>Location</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIG HORN COUNTY</td>
<td>US 16/20/WY 789</td>
<td>Greybull - South Corporate Limit</td>
<td>440</td>
<td>270</td>
<td>250</td>
<td>250</td>
<td>260</td>
</tr>
<tr>
<td></td>
<td>US 14/16/20</td>
<td>Greybull - North Corporate Limit</td>
<td>420</td>
<td>320</td>
<td>300</td>
<td>290</td>
<td>390</td>
</tr>
<tr>
<td></td>
<td>US 14</td>
<td>Greybull - East Corporate Limit</td>
<td>100</td>
<td>140</td>
<td>140</td>
<td>140</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>US 14A/310/WY 789</td>
<td>Lovell - East Corporate Limit</td>
<td>550</td>
<td>400</td>
<td>400</td>
<td>400</td>
<td>380</td>
</tr>
<tr>
<td></td>
<td>US 14A/310/WY 789</td>
<td>Lovell - West Corporate Limit</td>
<td>520</td>
<td>380</td>
<td>380</td>
<td>390</td>
<td>370</td>
</tr>
<tr>
<td>HOT SPRINGS COUNTY</td>
<td>US 20/WY 789</td>
<td>Thermopolis – So. Corporate Limit</td>
<td>540</td>
<td>520</td>
<td>520</td>
<td>510</td>
<td>510</td>
</tr>
<tr>
<td></td>
<td>US 20/WY 789</td>
<td>Thermopolis – No. Corporate Limit</td>
<td>490</td>
<td>400</td>
<td>400</td>
<td>390</td>
<td>390</td>
</tr>
<tr>
<td></td>
<td>WY 120</td>
<td>Thermopolis – W. Corporate Limit</td>
<td>170</td>
<td>180</td>
<td>160</td>
<td>190</td>
<td>160</td>
</tr>
<tr>
<td>PARK COUNTY</td>
<td>US 14A</td>
<td>Powell - West Urban Limit</td>
<td>290</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>290</td>
</tr>
<tr>
<td></td>
<td>US 14A</td>
<td>Powell - East Corporate Limit</td>
<td>250</td>
<td>270</td>
<td>240</td>
<td>240</td>
<td>280</td>
</tr>
<tr>
<td></td>
<td>US 14A</td>
<td>Cody - East Corporate Limit</td>
<td>290</td>
<td>280</td>
<td>280</td>
<td>280</td>
<td>320</td>
</tr>
<tr>
<td></td>
<td>US 14/16/20</td>
<td>Cody - West Corporate Limit</td>
<td>330</td>
<td>145</td>
<td>160</td>
<td>130</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>WY 120</td>
<td>Cody - North Corporate Limit</td>
<td>400</td>
<td>480</td>
<td>490</td>
<td>460</td>
<td>470</td>
</tr>
<tr>
<td>WASHAKIE COUNTY</td>
<td>US 16/20/WY 789</td>
<td>Cody - South Urban Limit</td>
<td>250</td>
<td>310</td>
<td>320</td>
<td>330</td>
<td>300</td>
</tr>
<tr>
<td>US 16/20/WY 789</td>
<td>Worland - North Corporate Limit</td>
<td>500</td>
<td>530</td>
<td>530</td>
<td>530</td>
<td>310</td>
<td>310</td>
</tr>
<tr>
<td>US 16</td>
<td>Worland - East Corporate Limit</td>
<td>380</td>
<td>380</td>
<td>380</td>
<td>220</td>
<td>220</td>
<td>260</td>
</tr>
<tr>
<td>WY 432</td>
<td>Worland - South Corporate Limit</td>
<td>120</td>
<td>170</td>
<td>170</td>
<td>80</td>
<td>80</td>
<td>70</td>
</tr>
<tr>
<td>US 20/WY 789</td>
<td>Worland - West Corporate Limit</td>
<td>570</td>
<td>490</td>
<td>460</td>
<td>450</td>
<td>370</td>
<td>430</td>
</tr>
<tr>
<td>US 16</td>
<td>Ten Sleep - East Corporate Limit</td>
<td>100</td>
<td>120</td>
<td>130</td>
<td>110</td>
<td>100</td>
<td>110</td>
</tr>
<tr>
<td>US 16</td>
<td>Ten Sleep - West Corporate Limit</td>
<td>150</td>
<td>120</td>
<td>120</td>
<td>130</td>
<td>130</td>
<td>130</td>
</tr>
</tbody>
</table>

These two sources of information were examined to ascertain truck traffic trends in Big Horn, Hot Springs, Park and Washakie counties. These trends are evaluated in the following paragraphs.

2.3.1 Hot Springs County

In Hot Springs County, greater truck volumes occur on the south side of Thermopolis along US 20/WY 789 (Table 2-6). An estimated 600 commercial trucks per day traveled along this highway segment in 2005 (Wiseman, 2006).

Higher volumes of truck traffic along this route probably reflect the reality that U.S. Highway 20/WY 789 is the only practical route available for moving equipment, goods and materials into Hot Springs County from locations south of Hot Springs County. However, only nominal growth in truck traffic took place along this route between 2000 and 2005.

Truck traffic volumes along the south side of Thermopolis, between 2000 and 2005, were greater than all other selected locations in the Big Horn Basin. This suggests that most of the incoming equipment, goods and materials coming into Hot Springs County, as well as the entire Big Horn Basin, may be coming from trucks that are originating from locations south, east and west of the Big Horn Basin.

As trucks enter the county seat of Thermopolis, traffic data indicates that significantly more trucks travel to and from areas north of Thermopolis, e.g., Worland, Greybull and Lovell, rather than traveling through the communities of Cody and Meteetse that are accessible via WY 120. In 2005, an average of 170 trucks per day traveled along WY 120 compared to 400 trucks that traveled through the northern corporate limits of Thermopolis.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Type of Freight or Commodities</th>
<th>Number of Trucks Clearing Frannie Port of Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP</td>
<td>Agriculture Products</td>
<td>837</td>
</tr>
<tr>
<td>CE</td>
<td>Construction Equipment</td>
<td>566</td>
</tr>
<tr>
<td>GF</td>
<td>General Freight</td>
<td>1,313</td>
</tr>
<tr>
<td>HM</td>
<td>Hazardous Materials</td>
<td>5,891</td>
</tr>
<tr>
<td>LOGS</td>
<td>Logs</td>
<td>4</td>
</tr>
<tr>
<td>LS</td>
<td>Livestock</td>
<td>200</td>
</tr>
<tr>
<td>MT</td>
<td>Empty</td>
<td>17,457</td>
</tr>
<tr>
<td>OE</td>
<td>Oilfield Equipment</td>
<td>386</td>
</tr>
<tr>
<td>OTHER</td>
<td>Anything Not Listed in this Table</td>
<td>14,355</td>
</tr>
<tr>
<td>OSRV</td>
<td>Oversized Recreational Vehicles</td>
<td>0</td>
</tr>
<tr>
<td>PASS</td>
<td>Passengers</td>
<td>4</td>
</tr>
<tr>
<td>PP</td>
<td>Petroleum Products</td>
<td>22</td>
</tr>
<tr>
<td>TH</td>
<td>Mobile, Modular &amp; Transportable Homes</td>
<td>129</td>
</tr>
<tr>
<td></td>
<td><strong>Total Trucks</strong></td>
<td><strong>41,164</strong></td>
</tr>
</tbody>
</table>

Source: Smith, 2006.
2.3.2 Washakie County

Truck traffic volumes in the vicinity of Worland indicate that most of the truck traffic in Washakie County is entering or leaving the city via U.S. Highway 20/WY 789. Much of this traffic has traveled from, headed to, or through Thermopolis (Table 2-6).

In 2005, an average daily traffic of 430 trucks passed through the western corporate limits of Worland. An estimated 310 trucks traveled through the northern corporate limits.

Available traffic data indicates a recent decline in truck traffic in Worland from 2001 through 2004. The past decline primarily reflects the closure of the former Imperial Sugar factory in 2002.

Truck traffic in Ten Sleep along U.S. Highway 16 is significantly less than that in Worland. In 2005 there were an average 130 trucks passing through the survey point in west Ten Sleep and 110 trucks passing through a survey point in east Ten Sleep. Consequently, U.S. Highway 16 is not one of the primary truck transportation routes in and out of the Big Horn Basin. Mountainous conditions and a single traffic lane with limited road shoulders characterize most of this highway. These conditions probably discourage many truckers from using this route. At the same time, it may also suggest that truck freight coming into the Big Horn Basin is more likely coming from trucks that have traveled along Interstate 80 or Interstate 90 before proceeding to the Big Horn Basin.
2.3.3 Big Horn County

Truck traffic flows in Big Horn County are primarily traveling through Greybull and Lovell along U.S. Highway 14/26/20. An average of about 390 trucks traveled through these communities in 2005 (Table 2-6). Much of this truck traffic was associated with the bentonite and gypsum industries.

Available traffic data indicates considerably less truck traffic is derived from trucks entering or leaving U.S. Highway 14 (east of Greybull). In 2005, an average of 140 trucks traveled this route. Most all of this truck traffic is associated with trucks hauling raw bentonite to existing mill processing facilities along this highway, as well as trucks hauling processed bentonite to markets north of Big Horn County.

Similarly, truck traffic along U.S. Highway 14A/310 (east of Lovell) included an average of about 390 trucks per day in 2005. This traffic primarily included truck hauling raw bentonite to nearby mill processing facilities, as well as trucks hauling processed bentonite to markets north of Big Horn County.

Available traffic data also indicates that pass-through truck traffic to and from U.S. Highway 16/20/WY 789 is primarily traveling east or west along U.S. Highway 14A to and from Powell. Secondarily, pass-through truck traffic to and from U.S. Highway 16/20/WY 789 travels north and south along U.S. Highway 310 to and from the Frannie Port of Entry and the Wyoming border. This conclusion is confirmed by available data from the Frannie Port of Entry where some 47,169 trucks cleared the Frannie Port of Entry between November 29, 2005 and November 29, 2006 (Table 2-7). This suggests a truck volume of 129 vehicles per day.

2.3.4 Park County

Truck traffic flows to and from Park County suggest an influx of trucks from the south via U.S. Highway 14A, as well as trucks traveling to and from Montana and Interstate 90 via Cody and WY 120. Secondarily, some truck traffic is also traveling to and from Yellowstone National Park.

An average of 280 trucks per day passed through the east side of Powell, via U.S. Highway 14A, in 2005 (Table 2-6). About 400 trucks per day traveled along the same highway, through the west side of Powell. North of Cody, an average of 390 trucks traveled along WY 120 en route to and from Montana and Interstate 90. Truck volumes on the west side of Cody, along U.S. Highway 14/16/20, included an average of 180 vehicles per day.

2.4 INBOUND AND OUTBOUND FLOWS

Available truck traffic and surface freight data are inadequate to determine the proportions of general freight and commodities that are imported to and exported from Wyoming via the Big Horn Basin. However, this information helps clarify the primary routes used by truckers to transport inbound and outbound freight and commodities.

The transportation of surface freight and commodities in and out of the Big Horn Basin is largely defined by Interstate Highways 15, 25, 80, 90 and 94 (Figure 2-6).
• Interstate 15 represents an important truck transportation corridor that extends from southern California to the northern Montana border. This corridor intersects with Interstate Highways 80 and 90, as well as provides access to bentonite markets in Canada’s Alberta Province.

• The Interstate 25 corridor is a north-south corridor that links the Big Horn Basin with Colorado and New Mexico. This corridor can be accessed from the Big Horn Basin via a U.S. Highway 16 segment that extends between Worland and Buffalo, Wyoming. However, available traffic data suggests that the use of this corridor by long haul truckers is more frequently accessed at intersections of Interstate 25 with Interstate 80 in Cheyenne and with Interstate 90 in Buffalo. Another important access point is at Casper where trucks travel west along U.S. Highway 20/26 before accessing U.S. Highway 20/WY 789 in Shoshoni, Wyoming.

• The Interstate 80 corridor generally extends from San Francisco, CA to Newark, New Jersey. This corridor is primarily accessed south of the Big Horn Basin via Riverton to Rawlins or Rock Springs, Wyoming.

• The Interstate 90/94 corridor connects the Big Horn Basin with Seattle, Washington in the Pacific Northwest, crosses several Northern Plain and Midwestern states including Montana, North Dakota, Minnesota, Illinois, Indiana and Ohio, and eventually terminates in Boston, Massachusetts. The Interstate 90/94 corridor is primarily accessed from Park County via WY 120 and Montana Highway (MT) 72. Interstate 90 is also accessed from Big Horn County via U.S. Highway 310 and MT 72.

It is suspected that general freight and commodities flowing in and out of the northern portions of Big Horn Basin are primarily transported along WY 120 and U.S. Highway 310 (Figure 2-7). These routes connect to Interstate 90 just south of Laurel, MT. Consequently, the northern portion of the Big Horn Basin is primarily linked to markets and suppliers that are situated north, east and west of Park and Big Horn counties.

In contrast, the transportation of incoming and outbound freight and commodities to Hot Springs and Washakie counties is derived more from truck traffic that primarily travels along Interstate 80 and eventually connects to the southern portion of the Big Horn Basin via U.S. Highway 20/WY 789 in Hot Springs County.
Big Horn Basin Transportation Study

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Figure 2-7
CHAPTER THREE
FACTORS INFLUENCING THE TRUCKING INDUSTRY

3.1 INTRODUCTION

With an eye toward developing strategies to improve the availability and cost of truck transportation services, it is important to consider various factors that influence the trucking industry. A general understanding of these realities is necessary to identify and implement practical strategies that can be carried out by regional economic developers and local businesses.

Chapter Three discusses several significant factors that currently affect the availability, delivery and cost of truck transportation services in the Big Horn Basin. These factors include driver compensation, insurance premiums, fuel prices and driver hours-of-service rules.

3.2 TRUCK DRIVER WAGES AND SALARIES

Driver compensation is proportionally a truck carrier’s major expense (United States Department of Transportation, Federal Highway Administration, 2005). Total wage and salary disbursements for the Wyoming trucking industry have steadily increased over the past several years from approximately $104.1 million in 2001 to $140.8 million in 2005 (United States Department of Commerce, Bureau of Economic Analysis, 2005). This increase is due in part to an overall increase of 306 total jobs in Wyoming’s trucking industry from 4,951 jobs in 2001 to 5,257 jobs in 2005 (U.S. Department of Commerce, Bureau of Economic Analysis, 2006). This data also suggests that the average wage and salary for the Wyoming trucking industry has also increased from approximately $21,025 in 2001 to $26,785 in 2005 (Figure 3-1). While all wages and salaries in Wyoming grew by 18 percent between 2001 and 2005, the Wyoming trucking industry grew at a much greater rate of 27 percent. Consequently, it has become increasingly more expensive to hire and pay truck drivers within Wyoming.

![Figure 3-1](image)

3.3 TRUCKING INSURANCE RATES

Insurance premiums are another important factor affecting the cost of truck transportation. From 2001 through 2003, trucking insurance premiums increased significantly (American Transportation Research Institute, 2005). “Safe” carriers, or those with satisfactory safety ratings, experienced premium increases of 20 to 60 percent, or more, during this time period. More recent data and discussions with trucking insurance companies indicate that insurance rates have stabilized since 2003, but any future fluctuations in premiums will likely affect the trucking industry (Wright, 2006).

Representatives from some local trucking companies, which are based in the Big Horn Basin, report that insurance rates are very closely linked with safety ratings. Companies with excellent ratings have not witnessed drastic increases in insurance premiums.

3.4 DIESEL FUEL COSTS

The primary factor identified during the interview of trucking company representatives was the price of diesel fuel. This is consistent with a recent national survey of trucking company representatives by the American Transportation Research Institute. The survey ranked fuel issues as the second most important issue facing the trucking industry (American Transportation Research Institute, 2006).

Numerous trucking company representatives indicated that while fuel prices have increased significantly over the past several years (Figure 3-2), trucking rates have not changed. Between March of 1994 and November 2006, the average retail price for a gallon of diesel fuel in the Rocky Mountain region increased almost 139 percent (U.S. Department of Energy, U.S. Energy Information Administration, 2006). Representatives of trucking companies that are based within the Big Horn Basin point out that local fuel prices are typically higher than surrounding areas.

While increasing fuel prices are significant, the volatility of diesel prices is perhaps more significant. Fuel costs can account for up to 20 percent of a trucking company’s operating cost (ICF Consulting, 2003). Consequently, rapid fluctuations in the price of diesel can have significant effects upon a trucking company’s profitability unless reasonable steps are taken to incorporate added fuel costs into truckload pricing.

The application or incorporation of fuel surcharges to load pricing rate has been authorized by the U.S. Congress at various times during the nation’s recent history. Fuel crises in 1973 and 1974, for example, prompted the Interstate Commerce Commission to impose temporary, emergency fuel surcharges. Various procedures have been established since that time to calculate fuel surcharges. Most recently, the U.S. Congress attempted to amend Title 49 of the U.S. Code in 2001 to establish a mandatory fuel surcharge. This amendment was known as the Motor Carrier Fuel Cost Equity Act of 2001. Subsequently, a slightly different version of this legislation (S.1914) was considered by the U.S. Senate in 2002, but this bill never passed. Consequently, no authority is given to trucking companies to levy a fuel surcharge; but, there is also no statute or regulation that prevents the industry from imposing a fuel surcharge.
Nevertheless, many trucking companies regularly apply fuel surcharges to load pricing (see section 3.5) during periods of escalating fuel prices. Fuel surcharges are an accessorial charge that truckload carriers pass on to their customers to help offset the cost of fuel. Surcharges are usually expressed in dollars per mile rate, e.g., $0.25 per mile. When shipping customers refuse to pay a fuel surcharge, the line haul rate is merely increased to incorporate the fuel surcharge rate.

![Figure 3-2: Average Monthly Diesel Prices Rocky Mountain Region 1994 - 2006](image)


### 3.5 LOAD PRICING

Interviews with local and national truck industry representatives reported that there is no set pricing schedule for trucking rates. All company rates are tied to the cost of operations. Factors that influence these rates include:

- Distance to destination;
- Length of trip;
- Distance to backhaul load pickup;
- Fuel costs throughout trip;
- Type of trailer used;
- Commodity being hauled; and,
- Volume of truck traffic near the destination of delivery and/or pickup.

Swift Trucking, a major national carrier, sets their base rates on a per mile basis that is dependant upon the zip code of the pickup or delivery (Rich, 2006). Different zip code areas have different
rates based upon the cost of doing business in that area. For example, if the delivery is to an area with limited in and outbound truck traffic, backhaul loads are more difficult to secure. This results in a higher price per mile for deliveries and/or pickups. Swift also assesses fuel surcharges that are based upon the geographic averages for diesel fuel prices for the area of the load destination/pickup provided by the U.S. Department of Energy (DOE). Other fees are also assessed for unloading, multiple-stops and expedited shipping.

Larry Hill, owner of local carrier Rolling Hills Trucking in Worland, indicated that their pricing schedule varies with each contract. Their prices are determined by examining the costs associated with the delivery of each load to its final destination. While Rolling Hills does not have a zip code database like Swift, company representatives are able to quickly and accurately arrive at a price estimate that accounts for fuel costs, length of trip, commodity hauled, equipment used, proximity to backhauls and other important cost factors. Similar to many other trucking companies, Rolling Hills Trucking assesses a fuel surcharge based on average diesel fuel prices that are determined by the U.S. Department of Energy. In most instances, fuel surcharges increase roughly one percent for every 5 to 10 cent increase in the price of diesel fuel (Hill, 2006).

To calculate a fuel surcharge, trucking companies typically make the following calculation.

- Determine the average retail price of diesel fuel in the region of origin, or where the trucking company picks up a freight load, on the date that the load is picked up from the shipper. This information is published by the U.S. Department of Energy, Energy Information Administration, on Wednesday of each week.
- Subtract the average retail diesel fuel price from a benchmark price of $1.10 and divide this number by an average truck mileage of five miles per gallon. An example of this calculation is presented in Table 3-1.
- Multiply the miles to be driven by the surcharge per mile to determine the fuel surcharge amount that should be recovered for a specific truck haul, e.g., 1,000 mile truck haul x $0.3788 = $378.80.

<table>
<thead>
<tr>
<th>Region</th>
<th>Average Price</th>
<th>Benchmark Price</th>
<th>Increase Per Gallon</th>
<th>Average Miles per Gallon</th>
<th>Surcharge Per Mile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rocky Mountain (CO, ID, MT, UT, WY)</td>
<td>$2.994</td>
<td>$1.10</td>
<td>$1.894</td>
<td>5</td>
<td>$0.3788</td>
</tr>
</tbody>
</table>


Some trucking companies use base line haul rates that include fuel surcharges for shipment of many finished products. Other companies establish separate line haul and fuel surcharge rates (Hill, 2006).
3.6 DRIVER SHORTAGES IN THE TRUCKING INDUSTRY

As stated earlier, a recent national survey of trucking company representatives was made by the American Transportation Research Institute in 2005. Trucking company representatives ranked driver shortages as the most important issue facing the trucking industry. This reality has forced some trucking companies to turn down freight loads and increase driver compensation in order to combat driver shortages (American Transportation Research Institute, 2006). Both potential consequences impact the profitability of trucking companies. By 2014, the national trucking industry may experience a driver shortfall of 111,000 drivers (Global Insight, Inc, 2005).

Representatives of several trucking companies reported that finding qualified employees is becoming increasingly difficult. Trucking company representatives from the Big Horn Basin area reported that the driver shortage is due, in part, to new driver regulations, the war in Iraq and more stringent drug screening. However, no available data quantifies the demand for truckers in Wyoming since the nature of trucking occurs on a local, regional and national basis.

3.7 HOURS OF SERVICE

Pursuant to U.S. Code, Vol. 70, No. 164, §395.5 commercial truck drivers are allowed to drive no more than 11 consecutive hours. After 11 hours on duty, commercial truck drivers are required to go off duty for 10 consecutive hours.

Representatives of several regional trucking companies indicated that the new rules make their truck operations more complicated and less safe. Under the new rule, team drivers are no longer to split in-cab bunk time. They must now stay off duty for 10 consecutive hours. Trucking company representatives contend that truck drivers would rather sleep for 5 hours and subsequently drive for 5 hours. This preference will be in contrast to sleeping for 5 hours, remaining awake for 5 hours off duty, and then work for 5 hours. Consequently, these new driver regulations are creating additional challenges for truck drivers (Schatz, 2006).

These regulations, which are administered by the Federal Motor Carrier Safety Administration (FMCSA), were recently struck down via a recent ruling by a U.S. Court of Appeals. However, no new revised regulations have yet been published by FMCSA.

3.8 CONDITION OF LOCAL TRUCKING RIGS SERVING THE BIG HORN BASIN

Dennis Woodward of the Frannie Port of Entry indicated that the quality and condition of trucking rigs serving the Big Horn Basin has increased. The enhanced condition of commercial trucking rigs is believed to be a result of, at least, two factors:

- Increased monitoring by the Wyoming Highway Patrol and Frannie Port of Entry authorities (Woodward, 2006); and,
- Growing professionalism of the trucking companies serving the Big Horn Basin.
3.9 AVAILABILITY AND USE OF BACKHAULS

3.9.1 Trucker Concerns

The interviews of national, regional and local trucking company representatives serving the Big Horn Basin reveal that almost all of these companies actively seek backhaul opportunities. Generally, these companies will backhaul any appropriate commodity or product that is compatible with the type of trailer being hauled, i.e., dry van, flat bed, or refrigerated. Most trucking companies actively seek out backhaul loads because these loads typically cover the cost of a return trip. Some examples of the freight and commodities that are backhauled to and from the Big Horn Basin include:

- Coal from northeast Wyoming;
- Lumber from northern Montana and Idaho;
- Block and brick;
- Salt;
- Agricultural feeds;
- Cement;
- Soda ash;
- Bentonite related inputs; as well as,
- Propane and diesel fuels.

Some of these companies have a backhaul radius that extends between 100 and 250 miles from their initial point of delivery.

Local trucking companies normally use on-line Internet brokers, or those brokers that can be conveniently contacted via toll-free telephone numbers, to identify potential backhauls following a one-way truck delivery. Truck brokers offer backhaul opportunities at non-negotiable rates (Jones, 2007) which are not necessarily accepted by independent truckers or truck companies. Truckers sometimes choose not to accept a potential backhaul when the non-negotiated price generates limited revenue. The experienced trucker considers the costs of operating his or her truck with and without a load. Since a loaded truck generates a higher operating cost, the trucker weighs whether the potential revenue from a backhaul is worth the extra “wear and tear” upon the truck. These considerations explain, in part, why many truckers return with empty loads.

Trucking companies that are not regularly seeking backhaul opportunities usually serve the oil and gas service industry. Their frequent deliveries to more remote sites typically do not afford backhaul opportunities (King, Betsch and Trenk, 2006). In addition, when a local trucking company is contracted directly by a specific shipper, truckers are normally not allowed to seek backhauls without the permission of a shipper’s broker or dispatcher (Anderson, 2007).

3.9.2 Shipper Concerns

Louis Pfrangle of Admiral Beverage indicated that backhaul opportunities are sometimes hard to find because of the types of rigs, i.e., dry van, that his company runs. Because Wyoming is a small service area, backhaul opportunities are sometimes limited.
Local trucking companies that specialize in hauling livestock indicated that backhaul loads are difficult to find. This is probably due to the specialized nature of the trailers that they are using and the remote areas that they serve.

### 3.9.3 Trucks Carrying Empty Loads

In Chapter Two, available data from the Frannie Port of Entry indicates that a significant number of empty loads pass through the Frannie Port of Entry. Port of Entry representatives indicate that these empty loads are primarily flat bed trailers deadheading to pick up loads from the bentonite industry in the Big Horn Basin.

These conclusions were confirmed with Dean Wolvington, owner of Big Horn Dispatch, who is a transportation broker who deals primarily with the bentonite industry. His primary objective is to arrange trucks for the pickup of bentonite and related products from the Big Horn Basin. Big Horn Dispatch only arranges backhauls when they are available. Approximately 60 percent of the backhauls that he brokers are associated with the bentonite industry.
CHAPTER FOUR
THE NEED FOR EXPANDED TRUCK BACKHAULS

4.1 GENERAL

An early premise formed and questioned by regional economic developers serving the Big Horn Basin was that a greater number of truck backhauls in the Big Horn Basin would facilitate the availability, timely delivery and cost of inbound and outbound freight and commodities. Further, the original intent of this project was, in part, to discover if there was a need for more backhaul agreements, as well as determine what type of freight and commodities would be conducive to future truck backhauls.

Chapter Four attempts to address these and other related issues, as well as the overall planning objective to help economic developers expand the regional economic base and new economic opportunities for communities in the Big Horn Basin. These conclusions are based primarily upon the information gained from trucking company representatives, as well as other information that is presented in Chapters Two and Three. The conclusions presented in Chapter Four form the basis of strategies presented in Chapter Five.

4.2 NEED FOR MORE TRUCK BACKHAULS

The trucking industry that serves the Big Horn Basin already seeks potential backhaul opportunities to enable the delivery of freight and commodities on a more profitable basis. There is financial motivation for national, regional and local trucking companies to pursue these potential opportunities. As stated in Chapter Three, most trucking companies actively pursue backhaul loads because backhaul loads often cover the cost of a return trip. However, as stated earlier, a trucker’s decision to accept a potential backhaul is influenced by the availability of a truckload and the non-negotiable price offered by a truck broker.

Trucking companies that serve the oil and gas industry are an exception. Many truck deliveries for this industry are destined for remote locations in the Big Horn Basin that are not in close proximity to potential backhaul opportunities.

4.3 MARKET PRICE: A BARRIER DISCOURAGING TRUCK BACKHAULS

The availability of greater backhaul opportunities is largely a consequence of the primary type of commodity being transported out of the Big Horn Basin and the present linehaul rate for truck transportation. Bentonite is the primary commodity that is hauled from the Big Horn Basin. During the first quarter of 2007, bentonite mills in the Big Horn Basin contracted truck hauling services at a rate of roughly $1.30 per mile. This rate includes a combined base line haul rate and fuel surcharge. Seventy to eighty percent of the truck carriers hauling bentonite from the Big Horn Basin use flatbed trailers (Wolvington, 2007).

A rate of $1.30 per mile is not attractive to many local, regional and national trucking companies that can secure more favorable truck haul rates from other markets (Wolvington, 2007). Truck rates along various truck lanes across the nation were examined to gain a better appreciation of the difference in market rates in other regional areas of the United States.
Integrated Decision Support Corporation maintains a database of rate information that is derived from over 100 truck carrier dispatch systems after specific truck loads have been billed. Recent information derived from this database indicates that, on a national basis, average truck haul rates (combined linehaul rate and fuel surcharge rate) in February 2007 ranged from $1.6534 for dry van, $1.6879 for flat bed trailer, and $1.7271 for a refrigerated trailer.

On a regional basis, the examination of several truck lanes (one-way origins and destinations) for dry vans, flatbed and refrigerated semi-trailers indicate considerable variability in market rates (Table 4-1 through Table 4-3).

- In February 2007, more attractive truck haul rates appeared to be available for flatbed trailer shipments along the Interstate 25 corridor between Billings, MT and Albuquerque, NM, as well as east-west routes between Milwaukee, WI - Seattle, WA and Pittsburgh, PA - San Diego, CA.

- Market rates for dry van trailers along the truck lane between Pittsburgh, PA and San Diego, CA are promising as market rates were slightly under $2.00 per mile in February 2007. Considerably lower rates, which are more comparable to the Big Horn Basin, were evident along the Tallahassee, FL - Chicago, IL and Butte, MT - Los Angeles, CA truck lanes.

- Refrigerated semi-trailers that transported freight along the Fargo, ND - Tulsa, OK truck lane obtained market rates of almost $2.30 per mile. Market rates along the Butte, MT - Los Angeles, CA and Billings, MT - Albuquerque, NM truck lanes ranged between $1.52 and $1.54 in February 2007. Lower market rates, which are comparable to the Big Horn Basin, were evident along the Tallahassee, FL - Chicago, IL truck lane.

<table>
<thead>
<tr>
<th>Origin</th>
<th>Destination</th>
<th>Miles</th>
<th>Average Line Haul Rate (dollars per mile)</th>
<th>Average Fuel Surcharge (dollars per mile)</th>
<th>Total Market Rate (dollars per mile)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fargo, ND</td>
<td>Tulsa, OK</td>
<td>802</td>
<td>1.16</td>
<td>0.27</td>
<td>1.43</td>
</tr>
<tr>
<td>Tallahassee, FL</td>
<td>Chiego, IL</td>
<td>966</td>
<td>1.40</td>
<td>0.27</td>
<td>1.67</td>
</tr>
<tr>
<td>Billings, MT</td>
<td>Albuquerque, NM</td>
<td>1000</td>
<td>1.61</td>
<td>0.27</td>
<td>1.88</td>
</tr>
<tr>
<td>Butte, MT</td>
<td>Los Angeles, CA</td>
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<td>1.24</td>
<td>0.27</td>
<td>1.51</td>
</tr>
<tr>
<td>Milwaukee, WI</td>
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<td>1.49</td>
<td>0.27</td>
<td>1.76</td>
</tr>
<tr>
<td>Pittsburgh, PA</td>
<td>San Diego, CA</td>
<td>2478</td>
<td>1.49</td>
<td>0.27</td>
<td>1.76</td>
</tr>
</tbody>
</table>

*Note: A truck lane refers to a one-way origin and destination for truck delivery.

Source: Integrated Decision Support Corp, 2007
The random selection of market rates from these regional truck lanes indicate a greater market opportunity for trucking companies in other regional areas of the continental United States. Market rates in the selected truck lanes frequently surpass a hauling rate of $1.30 per mile. Consequently, it is reasonable to conclude that the Wyoming market is generally less attractive than other regional truck lanes that pay more and have greater demand for truck transportation.

Within Wyoming, average inbound and outbound rates indicate another potential factor. In February 2007, the average inbound rate (combined line haul rate and fuel surcharge rate) for a flat bed trailer was $1.6989 while the average outbound rate was $1.1776 (Figure 4-1). The dramatic difference between inbound and outbound rates suggest that inbound truck traffic is regularly negotiated between truck carriers, truck brokers and shippers. In contrast, considerably lower outbound rates reflect the non-negotiation of backhaul rates that are established by shippers and truck brokers. This kind of economic environment evidently characterizes much of the truck transportation in the Big Horn Basin.
Thus, considerably lower outbound rates represent an economic factor that discourages an expansion of truck backhauls. As truckers consider a potential backhaul, they consider the cost of operating their trucks with and without a load. Even though an empty return trip generates a cost, sometimes the limited revenue generated from a potential backhaul is not considered worth the “wear and tear” upon a truck.
CHAPTER FIVE
RECOMMENDED STRATEGIES

5.1 OPPORTUNITIES TO IMPROVE THE AVAILABILITY AND COST OF RELIABLE TRUCK TRANSPORTATION

Economic developers in the Big Horn Basin should encourage existing small business owners and prospective investors to carry out various tasks that can facilitate their efforts to secure reliable truck transportation at a reasonable cost. Recommended tasks are described more fully in the following paragraphs.

It should be understood that each of these tasks is not necessarily appropriate to every type of small business. However, many of these tasks are applicable to small businesses that have product transportation requirements.

5.1.1 Consult a Knowledgeable Trucker, Truck Broker or Truck Carrier Representative

Regardless of past experience, entrepreneurs that establish or expand a business need to become knowledgeable concerning the type of freight that is moved by truck to and from their community. This study provides a general overview of the volume and type of truck traffic that occurs in the Big Horn Basin, as well as the primary truck routes in each of the four counties in the Big Horn Basin. Small business representatives can also contact knowledgeable truckers, truck brokers and truck carrier representatives to gain a greater understanding of how the procurement of truck hauling services works, when the use of truck brokers makes sense, what is necessary to arrange and contract truck transportation services, what types of trucks are available, the potential cost of truck transportation services, and other relevant information.
Small business owners and managers should also take the opportunity to advise local, regional, and national carriers of their anticipated transportation needs. Truck carriers should be informed concerning the type of inbound and outbound freight that will support company operations. Truck carriers should also be requested to contact a designated company representative when the carriers have a backhaul need.

5.1.2 Maintain and Share a Database of Trucking Companies Serving the Big Horn Basin

Small business owners that enter a new community are often unaware of whom to contact for information concerning truck transportation unless they already have established relationships with regional and national truck carriers, or truck brokers. During the course of this study, PPC organized a database of local, regional and national trucking companies, as well as truck brokers, that serve the Big Horn Basin. This database, which was established using MS Excel software, should be maintained by regional economic developers in the Big Horn Basin and shared with existing and prospective business owners who need to arrange truck transportation services.

5.1.3 Monitor Linehaul and Fuel Surcharge Rates

Linehaul and fuel surcharge rates change frequently in response to a variety of factors such as the price of fuel, increased governmental regulations, regional freight transportation demands, and the cost of insurance. The regular examination of these factors can absorb a considerable amount of time that is not available to most small business owners and managers. It is possible, however, to conveniently monitor linehaul and fuel surcharge rates on, at least, a monthly basis.

Available truck market rate information for this report was made primarily through the review of information developed by Integral Decision Support Corporation. This corporation regularly collects truck freight rate data from 100+ truck carriers. Confidential dispatch records are collected and aggregated on a monthly basis to determine low, high and average price ranges for truck lanes throughout the United States. The data is made available on a modest subscription basis via a website known as: www.truckloadrate.com.

A typical rate search on this website enables the reviewer to quickly determine the following information for one or more truck lanes in the United States:

- The one-way distance between origin and destination;
- The base linehaul rate for dry van, flatbed or refrigerated semi-trailers;
- The average fuel surcharge rate;
- Potential additional fees associated with the loading and unloading of freight by the trucker transporting the freight; and,
- Potential additional costs that will be generated from one or more stops along the truck lane.

The regular review of this information will enable the small business owner or potential investor to become more informed before seeking truck transportation services and negotiating truck load rates with a truck carrier.
5.1.4 Organize Cost Effective Product Transportation

For companies that intend to transport finished products to specific wholesale or retail customers, some cost efficiencies can be achieved through the organization of the shipper’s product transportation activities. More attractive truck haul rates can also be achieved if small business enterprises take appropriate steps that will enable truck carriers to offer more attractive truck load rates.

When feasible, companies should assign, at least, one logistics manager who is responsible for the arrangement of truck pickup and deliveries, as well as the monitoring of all incoming and outgoing freight. This person will regularly maintain records that will enable the company to efficiently track the delivery and shipping of all incoming and outgoing freight. The use of a company logistics manager will eliminate commission fees that might otherwise be paid to a truck broker. If the size, resources or preferences of the company preclude the hiring of a logistics manager, a truck broker should be retained by the company to secure, arrange and track all incoming and outgoing freight that is transported by truck.

If a logistics manager position is established within a company, the logistics manager will ideally:

a. Ensure that the truck loading dock or area is always accessible and ready for truck pickups and deliveries;
b. Supervise the loading and unloading of all incoming and outgoing trucks by company personnel. The use of company personnel for loading and unloading will eliminate additional fees for the loading and unloading of freight by the truck carrier.
c. Coordinate with a company production supervisor to organize full truck loads. The organization of full truck loads will eliminate the need for the truck carrier to make multiple stops and charge the shipping company a higher truck load rate. For every two stops that a truck makes, the total truckload rate will increase about $0.01 per mile. Additional stops will often add additional mileage to the overall length of the trip that will also increase the total cost of truck transportation.

5.1.5 Seek and Negotiate Reasonable Truck Load Rates

Serious potential investors considering the establishment or expansion of a small business enterprise in the Big Horn Basin understandably need some assurance of the availability of reliable truck transportation at a reasonable cost. At the same time, potential investors must recognize that the availability of reliable truck transportation depends upon the ability of truck carriers to deliver freight and commodities on a profitable basis. A negotiated rate between the truck carrier and the shipper, or a truck broker, is needed to arrive at a rate that enables both sides to “win”. These negotiations should be made by an experienced company logistics manager or experienced truck broker.
5.1.6 Consider Product Transportation Costs When Establishing Gross Sales Prices

Every successful company that develops a product requiring transportation to their customers must consider product transportation costs as part of its calculation of gross sales prices. In order to be more competitive, it is tempting for some companies to base their gross product sales prices, in part, upon potential backhaul rates that might be lower than normally negotiated, truck haul rates.

This practice should be avoided to reduce unnecessary losses in company revenue. At the same time, the company should aggressively pursue opportunities to take advantage of occasional savings derived from potential truck backhauls and other special pricing.

A preferred option is to sell products on a cost and freight basis. Under these agreements, the buyer of a product agrees to pay a purchase price that includes the “free on board” (F.O.B.) value of a product at the product’s point of origin, as well as all product transportation and insurance costs.

Using this approach, the costs associated with product transportation should be clearly identified to customers prior to and following the sale of products. In this manner, customers better understand the cost of the product, as well as the resources needed to transport the product. Some customers may desire to pursue other transportation options to gain a lower price for the purchased product.
REFERENCES


Rich, Valerie, Terminal Manager, SLC. December 2006. **Personal Communication.** Salt Lake City, Utah.


