



CORRIDOR 8 Shoshoni to Lovell US 20/WY0 789





### PRIMARY INVESTMENT TYPE: SAFETY

The primary investment need on this corridor is to reduce the number and severity of vehicle crashes, especially in the Wind River Canyon and north of Thermopolis as well as between Greybull and Basin. The possible correction of horizontal and vertical curves should be further investigated in the future corridor plan. Regular maintenance and pavement resurfacing should be included to prevent deterioration of roadway surfaces. Plans should include the rehabilitation and replacement of deficient bridges.

# **CORRIDOR CHARACTERISTICS**

## **Corridor Description**

State Significant Corridor (SSC) 8, from Shoshoni to Lovell, is 157 miles long and passes through the counties of Fremont, Hot Springs, Washakie, and Big Horn. It follows US 20, also called WYO 789, from Shoshoni to Worland. At Worland US 16 intersects US 20. At Greybull, US 14 joins US 16/20 for approximately five miles. From that point west of Greybull, US 14/16/20 continues west while WYO 789/US 310 continues north through Lovell to the Montana state line.

This corridor connects several small communities, including Shoshoni (population 689), Thermopolis (population 2,971), Worland (population 4,958), Basin (population 1,243), Greybull (population 1,739) and Lovell (population 2,276). It also serves the smaller communities of Cowley, Deaver and Frannie. Agriculture is an important industry along this corridor.

SSC 8 follows the Wind River/Big Horn River from Thermopolis to Greybull. The Wind River Scenic Byway overlays a portion of the corridor from Shoshoni to Thermopolis through the Wind River Canyon. The segment from Worland to Greybull is designated as part of the Northern Tier East-West Bicycle Route.

The corridor runs parallel to the Bridger Trail from the US 20/WYO 172 intersection north to the US 20/WYO 431 intersection. The Bridger Trail was an overland route connecting the Oregon Trail to the gold fields of Montana. The corridor is a major commerce route into the Big Horn Basin.



# **Environmental Context**

West of US 20/WYO 789, just north of Shoshoni is Boysen State Park. This is one of the larger parks in the Wyoming State Park System. It is a lake-orientated park at the south end of the Owl Creek Mountains at the mouth of Wind River Canyon, part of the Wind River Canyon Scenic Byway. It was designated as a Wyoming Scenic Byway in 2005. The reservoir is a popular sporting area with numerous species of fish including walleye, perch, crappie and several species of trout. The canyon is a popular stop for visitors traveling to Yellowstone National Park. The river is a Class I water from the Boysen Dam to Thermopolis and includes rafting operations.

SSC 8 passes through Thermopolis, home to Hot Springs State Park and

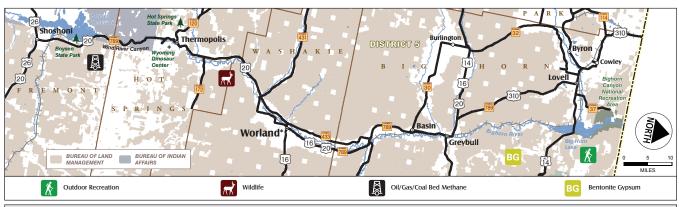
the Wyoming Dinosaur Center. Both of these areas are described in detail as part of SSC 7.

North of Thermopolis, US 20/WYO 789 follows the Big Horn River until it reaches the Bighorn Canyon National Recreation Area northeast of Lovell. The Bighorn Canyon National Recreation Area was established in 1966, following the construction of the Yellowtail Dam by the Bureau of Reclamation.

Big Horn Lake extends approximately 71 miles through Wyoming and Montana, 55 miles of which are held within spectacular Bighorn Canyon. The Recreation Area is composed of over 120,000 acres located in northern Wyoming and southern Montana.

#### **Corridor Interests:**

- Scenic Byways
- Visual Resources
- Cultural and Historic Resources
- Recreation Management
- Travel Management
- Wildlife Connectivity, Habitat Fragmentation



The above map identifies issues and environmental constraints that form the basis for environmental review. Future projects in the corridor will take these and other issues under consideration prior to final design.

### **ENVIRONMENTAL CONTEXT**

# **Key Issues and Emerging Trends**

#### **Major Traffic Generators**

- Boysen State Park
- Hot Springs State Park Thermopolis
- Bighorn Canyon National Recreation Area
- Mineral production bentonite/gypsum
- Agricultural traffic sugar beet industry

- The Wind River Canyon and Boysen Reservoir are north of Shoshoni on US 20, which follows the Wind River/Big Horn River from Shoshoni to Lovell. This route is economically very important and serves year round use because there are no mountain passes. The road is narrow, and rockfall is a problem. The tunnel north of Shoshoni is a choke point that limits construction options. Safety is a key issue.
- Wildlife is attracted to the Wind River/Big Horn River and vehicle/ animal conflicts are a significant issue.
- Agricultural equipment and trucks use US 20 as an integral part of their operations. These vehicles use general travel lanes, but often at very slow speeds, therefore affecting other traffic.
- Several of the local routes in the travelshed have both roadway surface condition and/or safety issues. These include WYO 172, WYO 433, WYO 30, WYO 31, and WYO 432.
- The corridor is environmentally sensitive because of its adjacency to the Wind River/Big Horn River. Stormwater runoff, water quality, view sheds, and habitat are all issues along the entire length.
- Several bridges need repair or replacement.
- The corridor must accommodate various types of use including commuter, recreational, and commercial traffic.



# **Goals & Strategies**

Goals for the corridor represent issues communicated by participants in the planning process. These goals lay groundwork for the development of a financially feasible multi-modal transportation plan designed to support the planning, engineering, construction, operation, and maintenance of the State's transportation system.

By identifying broad goals that are both visionary and practical, and that respond to the values of this region, the focus of future actions is readily identified. The goals are further defined with specific supporting strategies to attain each goal. For this corridor, the impact of commuter traffic on the road system, especially between Shoshoni and Thermopolis emerged as the most pressing need due to the average daily traffic on US 20/WYO 789. Goals for the corridor focus on preserving the existing system to promote safety throughout the corridor.

GOALS	STRATEGIES		
	Wildlife crossing improvements		
Reduce fatalities, injuries, and property damage crash rate	Rock fall mitigation		
	Safety - general improvements		
	Bridge rehabilitation/replacement		
Preserve the existing transportation system	Surface treatment/overlays		
Support farm to market economic sustainability	WYDOT/community partnerships		
Support farm to market economic sustainability	Safe highway access to fields		
	Stormwater runoff		
Promote environmentally responsible transportation improvements	View sheds		
	Wetlands preservation/banking		
	Wildlife corridors/wildlife habitat connectivity		

# **Primary Investment Type**

**SAFETY** – The primary investment need on this corridor is to reduce the number and severity of vehicle crashes, especially in the Wind River Canyon and north of Thermopolis as well as between Greybull and Basin. The possible correction of horizontal and vertical curves should be further investigated in the future corridor plan. Regular maintenance and pavement resurfacing should be included to prevent deterioration of roadway surfaces. Plans should include the rehabilitation and replacement of deficient bridges.

# **Roadway Characteristics**

The following maps identify conditions on the corridor with respect to surface condition, total traffic, truck traffic, safety, and bridges. The data represent the most recent available and are subject to change over time as projects are completed or other factors affect existing conditions. The system data play a big part in determining current operating characteristics, the type of need, and the extent of improvements necessary to achieve corridor goals.



#### **PAVEMENT SURFACE CONDITION**

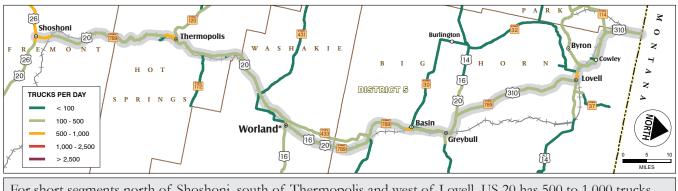
The pavement conditions vary along SSC 8 from Shoshoni to the Montana state line. Fifty-four percent of the corridor is rated good/excellent, 35 percent fair, and 11 percent poor. Poor pavement conditions are located north of Thermopolis and northwest of Greybull. Fair pavement conditions are located from Worland to the Lovell.

#### AVERAGE ANNUAL DAILY TRAFFIC (AADT)



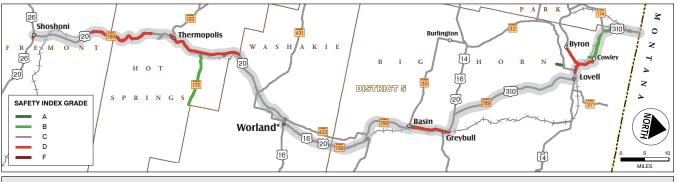
US 20, from Shoshoni north through Thermopolis to WYO 172, carries 2,500 to 5,000 vehicles per day (vpd). From WYO 172 to WYO 31 north of Worland, the AADT is 1,000 to 2,500 vpd. North on WYO 789 from WYO 31 to US 310, the AADT is 2,500 to 5,000 vpd. From the WYO 789/US 310 Junction to the Montana state line, the AADT averages 1,000 to 2,500 vpd.

### AVERAGE ANNUAL DAILY TRUCK TRAFFIC (AADTT)



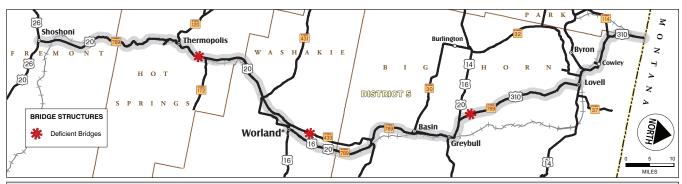
For short segments north of Shoshoni, south of Thermopolis and west of Lovell, US 20 has 500 to 1,000 trucks per day. The rest of corridor SSC 8 has 100 to 500 trucks per day.

#### **SAFETY INDEX**



Sections of US 20 in the Wind River Canyon, north of Thermopolis, and between Basin and Greybull, totaling about 28 percent of the corridor, have a below average Safety Index grade.

#### **DEFICIENT BRIDGES**



There are three deficient bridges shown on the map. One bridge is located just north of Thermopolis along US 20, the second bridge is located north of Worland on WYO 433, the third bridge is located on US 310/WYO 789 northwest of Greybull. All deficient bridges visible in the map window are displayed, regardless of designation as SSC, Regional, or Local Routes.

# **REGIONAL REFERENCE INFORMATION**

#### **REGIONAL ROUTES**

US 14A is an alternative route to US 14 between Cody and Burgess Junction. Heading east from Lovell along US 14A is the Medicine Wheel National Historic Landmark. The Medicine Wheel sits above the tree line on Medicine Mountain. This is the start of the Medicine Wheel Scenic Byway, the highest elevation highway in the state and it offers access to important Native American historical sites.

### **URBAN AREAS**

Urban Areas are cities with populations greater than 5,000 people. Worland is the only urban area associated with SSC 8 and is discussed in detail in the Urban Corridors section later in the document.

#### **LOCAL ROUTES**

LOCAL ROUTE	COUNTY	FROM	то		
WYO 30	Big Horn	US 16/US 20/WYO 789			
WYO 31	Big Horn	US 16/20	Big Horn CR 49		
WYO 32	Big Horn	US 14/16/20	US 14A/US 310/WYO 789		
WYO 33	Big Horn	Forester Gulch	WYO 33		
WYO 35	Big Horn	Big Horn CR 5	US 310/WYO 789		
WYO 36	Big Horn	WYO 30	US 16/US 20/WYO 789		
WYO 37	Big Horn	US 14A	Bighorn Canyon National Recreation Area		
WYO 114	Park	US 14A	US 310/WYO 789		
WYO 172	Hot Springs	US 20/WYO 789	East		
WYO 173	Hot Springs	US 20/WYO 789	Buffalo Creek Rd		
WYO 175	Hot Springs	US 20/WYO 789	East into Kirby		
WYO 431	Hot Springs/ Washakie	WYO 120	US 20/WYO 789		
WYO 432	Washakie	US 20/WYO 789	US 16/US 20/WYO 789		
WYO 433	Washakie/Big Horn	US 20/WYO 789	US 16/US 20/WYO 789		

Source: Official State Highway Map of Wyoming

### **INTERMODAL FACILITIES**

#### **Intercity Bus Routes**

Intercity bus service is available on the route from Shoshoni north to the Montana state line with stations in Shoshoni, Thermopolis, Worland, Basin, Greybull, Cowley, Deaver and Frannie.

#### **Class 1 Railroads**

BNSF Railway Company lines parallel most of the corridor.

#### **Public Transportation Agencies**

PROVIDER AGENCY NAME	LOCATION TYPE OF SERVICE		SIZE OF FLEET	ANNUAL PASSENGER TRIPS FY08	
NOWCAP Foster Grandparents Program	Thermopolis	Non-Profit - Demand Response	2 Vehicle	10,737	
Hot Springs county Senior Citizens Center	Thermopolis	Non-Profit - Demand Response	3 Vehicles	15,385	
Wind River Transportation Authority	Shoshoni	Public Organization; 15 Vehic Fixed Route, Demand Response		69,148	
Shoshoni Senior Center	Shoshoni	Non-Profit - Demand Response	1 Vehicle	2,738	
Washakie County Senior Citizens Center	Washakie	Non-Profit - Demand Response	3 Vehicles	7,649	
North Big Horn Senior Citizens	Lovell	Non-Profit - Demand Response	4 Vehicles	12,698	
South Big Horn Senior Citizens	Greybull	Non-Profit - Demand Response	4 Vehicles	13,037	
Black Hills Stage Line Billings, MT to Denver, CO through Shoshoni		Private; Fixed Route Intercity Bus	N/A	N/A	

Source: WYDOT



## **DEMOGRAPHIC CHARACTERISTICS**

Fremont County grew 6.4 percent from 2000 to 2008, with most of the population gain centered in Lander and Riverton. Growth in other areas was relatively flat or negative. Worland lost population during the period, dipping below the 5,000 mark.

The major employment industry for all four counties is Education & Health, followed closely by Arts & Recreation in Hot Springs County; Retail in Washakie and Fremont Counties; and Agriculture and Retail in Big Horn County. See Appendix B for more details about employment by county.

COUNTY	CITY	2000	2008	% GROWTH	% STATE TOTAL (2008)
Big Horn	County	11,461	11,322	-1.2	2.1
	Basin	1,238	1,243	-0.2	
	Burlington	250	253	1.2	
	Byron	557	557	0.0	
	Cowley	560	614	9.6	
	Deaver	177	177	0.0	
	Frannie (pt.)	180	179	-0.6	
	Greybull	1,815	1,739	-4.2	
	Lovell	2,281	2,276	-3.6	
	Manderson	104	100	-3.8	
Fremont County		35,804	38,113	6.4	7.
	Dubois	962	1,053	9.2	
	Hudson	407	429	5.4	
	Lander	6,867	7,264	5.1	
	Pavillion	165	169	2.4	
	Riverton	9,310	10,032	8.4	
	Shoshoni	635	689	8.5	
Hot Spring	gs County	4,882	4,622	-5.3	0.
	East Thermopolis	274	264	-3.6	
	Kirby	57	55	-3.5	
	Thermopolis	3,172	2,971	-6.3	
Washakie County		8,289	7,821	-5.6	1.
	Ten Sleep	304	315	3.6	
	Worland	5,250	4,958	-6.3	

Source: Population Division, US Census Bureau, July 1, 2009

### **Airport Information**

AIRPORT NAME (Associated City)	NPIAS ROLE & HUB TYPE <sup>1</sup>	NPIAS	WYDOT CLASSIFICATION (2008)	WYDOT CLASSIFICATION (FUTURE)	TOTAL AIRPORT OPERATIONS	BASED AIRCRAFT	TOTAL PASSENGERS (2006)
Shoshoni Municipal Airport (Shoshoni) (non-paved)		Non- NPIAS	Local	Local	75	3	
Worland Municipal Airport (Worland) <sup>2</sup>	GA	NPIAS	Commercial	Commercial	4,180	13	6,091
North Big Horn County Airport (Cowley)	GA	NPIAS	Local	Local	4,175	10	
Hot Springs County- Thermopolis Airport (Thermopolis)	GA	NPIAS	Local	Local	2,580	8	

<sup>1</sup>NPIAS (National Plan of Integrated Airport Systems) Role and Hub Type are same for both existing (2007) and 5-year federal forecast <sup>2</sup>Worland is listed as a "GA" airport in the NPIAS, but currently has scheduled airline service and is recognized by WYDOT as a Commercial Service Airport

Source: WYDOT and FAA