Hoback Junction

environmental assessment

WYDOT Project Numbers:
N104006 | N104065 | N104078

Prepared for:
Federal Highway Administration and
Wyoming Department of Transportation

September 2007

Environmental Assessment

Wyoming Project Nos. N104006, N104065, and N104078

Hoback Junction, Wyoming
Teton County

Prepared for:
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and

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Hoback Junction

Teton County

Environmental Assessment

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September 2007

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List of Acronyms and Abbreviations

AASHTO	American Association of State Highway Transportation Officials
ACOE	Army Corps of Engineers
ADT	Average Daily Traffic
ASTs	Aboveground Storage Tanks
BMPs	Best Management Practices
BTNF	Bridger-Teton National Forest
CWA	Clean Water Act
dBA	A weighted Decibels
DEIS	Draft Environmental Impact Statement
DEQ	Department of Environmental Quality
DFC	Desired Future Condition
DOT	Department of Transportation
EA	Environmental Assessment
EDR	Environmental Data Resources
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Maps
FTA	Federal Transit Administration
GAP	Gap Analysis Project
HUC	Hydrologic Unit Code
ID Team	Interdisciplinary Team
IGBC	Interagency Grizzly Bear Committee
JHWF	Jackson Hole Wildlife Foundation
LDR	Land Development Regulations

LOS	Level of Service
LRMP	Land and Resource Management Plan
WYDOT	Wyoming Department of Transportation
MIS	Management indicator species
MVM	Million Vehicle Miles
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
NHS	National Highway System
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resource Conservation Service
NRI	Nationwide Rivers Inventory
NRO	Natural Resources Overlay
RMP	Resource Management Plan
SHPO	State Historic Preservation Officer
SRO	Scenic Resources Overlay
STIP	State Transportation Improvement Projects
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
TMDLs	Total Maximum Daily Loads
TNM	Traffic Noise Model
ULI	Urban Land Institute
USACE	United State Army Corps Engineers
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geologic Survey
USTs	Underground Storage Tanks

VMT	Vehicle Miles Traveled
VQO	Visual Quality Objectives
WCSB	Wyoming Centennial Scenic Byway Management Plan
WDEQ-AQD	Wyoming Department of Environmental Quality- Air Quality Division
WSGS	Wyoming State Geologic Survey
WSR	Wild and Scenic Rivers
WYDOT	Wyoming Department of Transportation
WYNDD	Wyoming Natural Diversity Database
WYPDES	Wyoming Pollutant Discharge Elimination System
YNP	Yellowstone National Park

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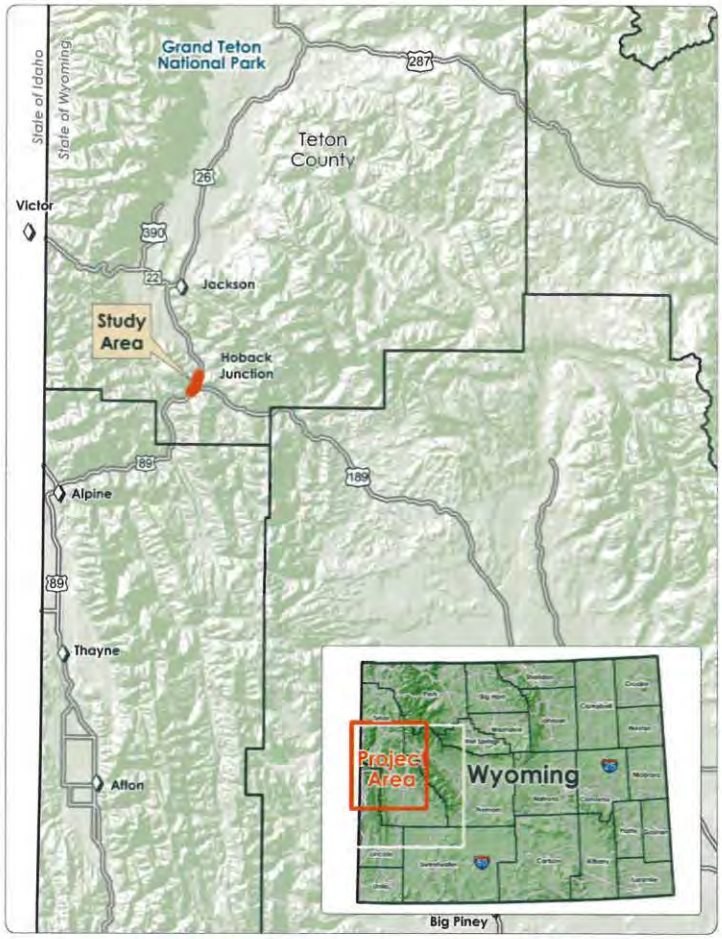
Chapter 1.0 Study Background and Need for Action

1.1 Introduction

The Wyoming Department of Transportation (WYDOT), in cooperation with the Federal Highway Administration (FHWA), is preparing an Environmental Assessment (EA) for a project located at Hoback Junction in Teton County, Wyoming, south of the Town of Jackson (see **Figure 1-1**). This EA is being prepared to comply with the National Environmental Policy Act of 1969 (NEPA) and its implementing regulations.

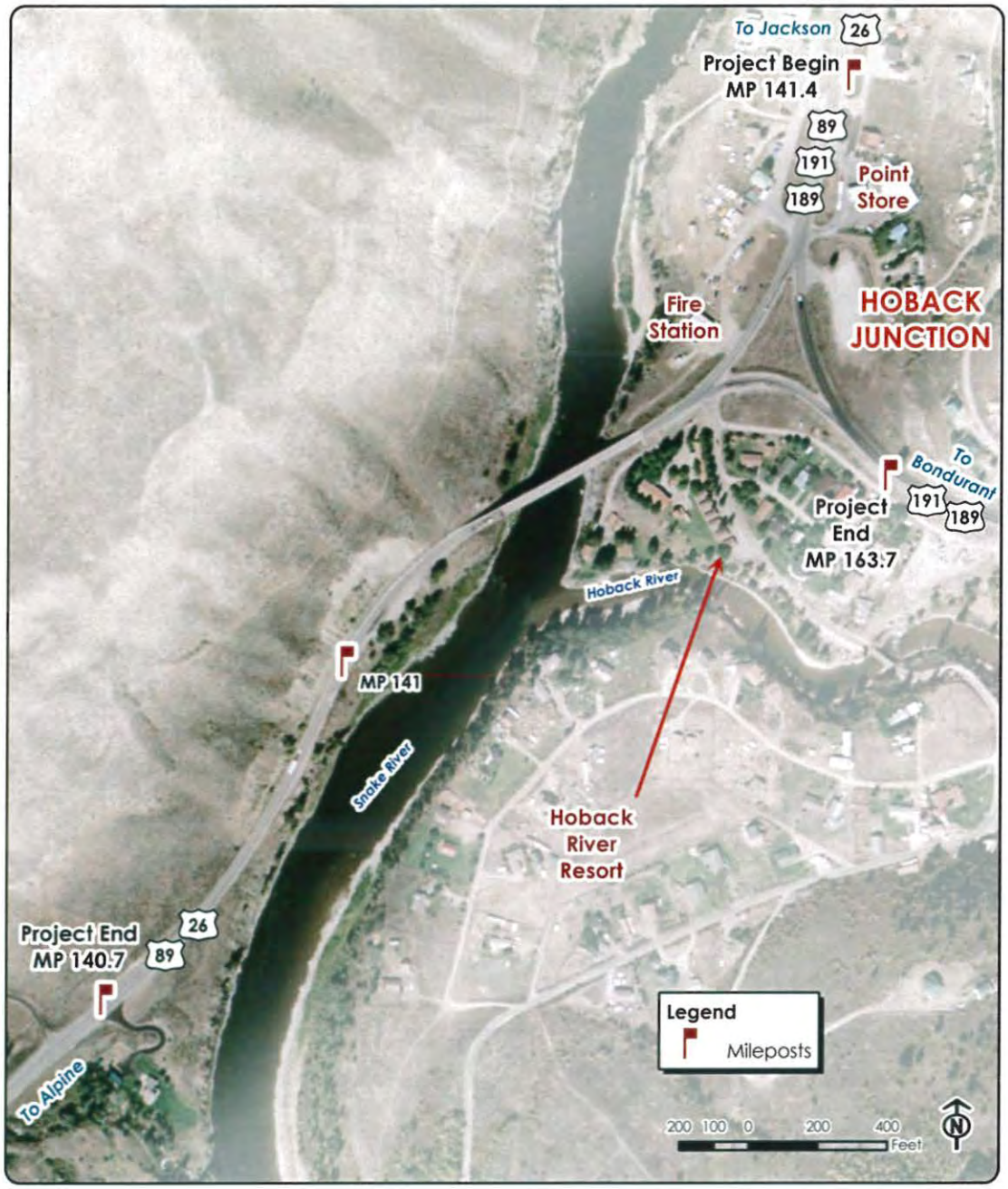
Hoback Junction is a small community located at the confluence of the Snake and Hoback Rivers and at the intersection of three U.S. Highways: U.S. Highway 26/89/189/191, U.S. Highway 26/89, and U.S. Highway 189/191. Located in a valley in a fairly mountainous area, Hoback Junction largely consists of privately owned residential and commercial land surrounded mostly by public land managed by the Bridger-Teton National Forest (BTNF).

Figure 1-1
Regional Setting



The study area extends 0.6 mile along U.S. Highway 26/89, between MP 141.4 and 140.7, and includes the three-way intersection and the Snake River Bridge immediately southwest of the Hoback Junction community (see **Figure 1-2**). The three highway sections that meet at Hoback Junction are critical travel links within the region. Commuters from Pinedale and Bondurant (via U.S. Highway 189/191) and Alpine (via U.S. Highway 26/89) use these segments of roadway to commute to and from Jackson. Also, the highway is heavily used by commercial vehicles, as well as tourism traffic. Traffic volumes increase considerably during the summer months and also increase to a lesser degree during winter months due to recreationally oriented tourism. The existing highways are comprised of two 12-foot lanes, with variable shoulder widths.

Figure 1-2
Study Area



The purpose of the Hoback Junction project is to resolve existing bridge and roadway deficiencies, while safely and efficiently accommodating current and future traffic volumes and improving system linkage. Primary transportation needs for the study area, described in more detail in the following sections, are to:

- Correct roadway and bridge deficiencies.
- Accommodate travel demand.
- Improve traffic safety.
- Reduce geologic hazard potential.

1.2 Background and Regional Setting

WYDOT and FHWA initiated a Draft Environmental Impact Statement (DEIS) in 2000 which included study of portions of the three highway segments that meet at Hoback Junction: U.S. Highway 26/89/189/191 from MP 148.6 south to the Junction, U.S. Highway 26/89 from MP 140.7, and U.S. Highway 189/191 to MP 160.8 (see **Figure 1-3)**. In 2007, based on their independent utility and distinctive attributes, WYDOT and FHWA decided to separate these three segments into three distinct NEPA studies, leading to the initiation of the Hoback Junction EA

During project scoping and through public meetings, it became clear the three segments have differing needs and result in significantly different alternatives. In addition, the level of controversy for the solutions differs among the segments due to their impacts to the resources. One other contributing factor in deciding to separate the three distinct segments was the time frames proposed for construction. The FHWA has determined each of the three highway segments has logical termini and independent utility and may therefore proceed as separate NEPA documents. (See FHWA letter dated August 9, 2007 in Appendix C).

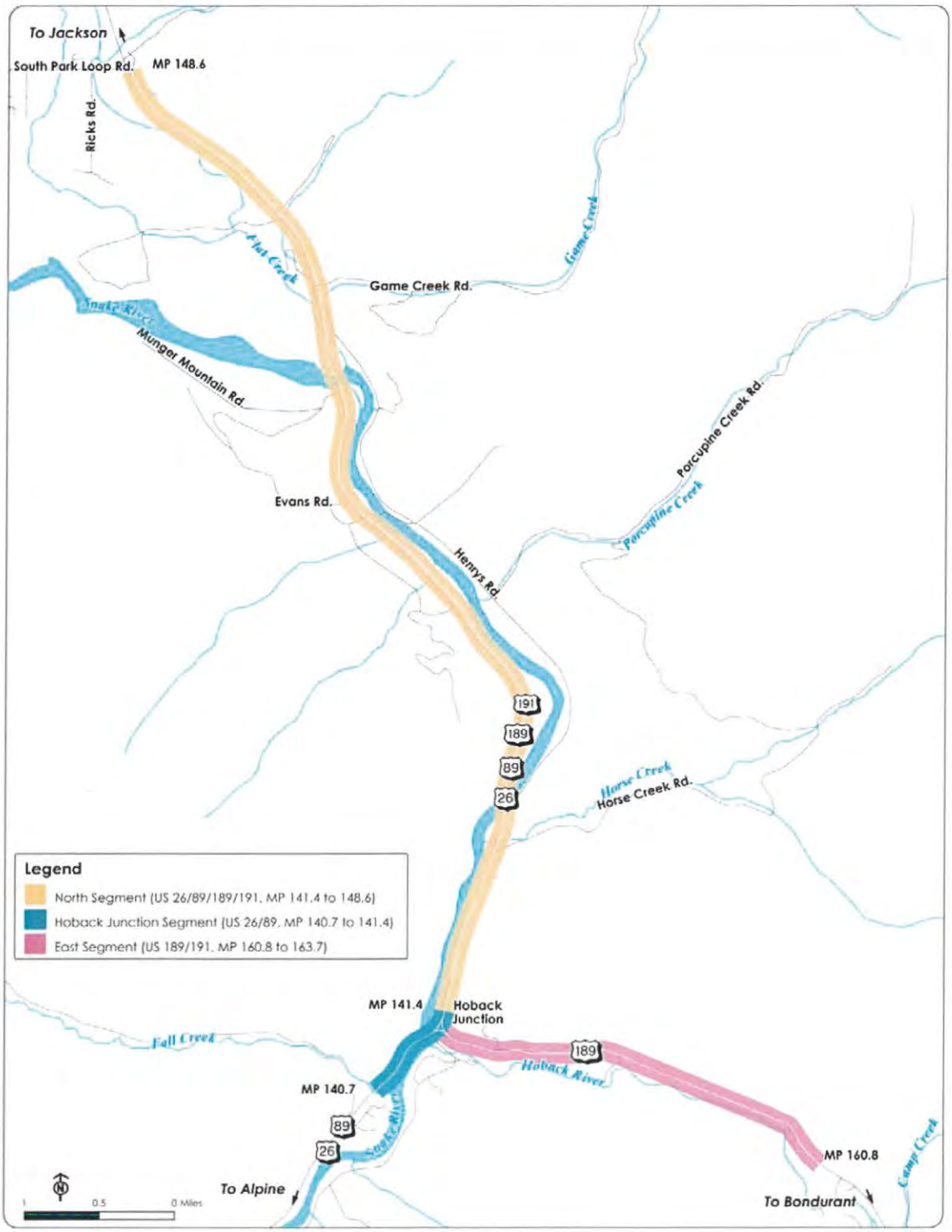
Hoback North primarily addresses highway capacity needs and includes proposed alternatives for capacity improvements. Alternatives under consideration will not restrict consideration of alternatives at Hoback Junction since capacity is not the primary need at Hoback Junction.

Hoback East has one primary need, to correct or avoid a landslide area. The foreseeable alternatives will not restrict alternatives at Hoback Junction.

Hoback Junction has two primary needs: replacement of the deficient bridge over the Snake River and modification of the US 26/89, US 189/191, and US 26/89/189/191 intersection. The proposed improvements include the addition of a center turn lane, but do not increase the number of through travel lanes, and therefore would not increase capacity.

The highways in the Hoback Junction study area were originally constructed in the 1920s and 1930s. They are designated by WYDOT and the U.S. Department of Transportation as part of the National Highway System (NHS) and the Wyoming State Highway System. The NHS includes the Interstate Highway System, as well as other roads important to the nation's economy, defense, and mobility. The NHS was developed by the U.S. Department of

Figure 1-3
Hoback Junction EIS Project Segments



Transportation in cooperation with the states, local officials, and metropolitan planning organizations.

Figure 1-1 shows the existing state highway system, which works with the local road system to provide mobility throughout the Jackson Hole regional area. U.S. Highway 26/89 serves as an important link in this regional transportation system and has become increasingly important for commercial, commuter, and tourism traffic. The roadway is used by recreational users accessing the Snake River Canyon and the Hoback Canyon, and by visitors to Yellowstone and Grand Teton National Parks. Commuter use of the highway has increased dramatically as the workforce for the Jackson area has moved into surrounding communities because of the substantial increase in the cost of living in Jackson.

The highways adjacent to and near Hoback Junction have recently been improved or planned for improvement. The highway west of the study area has been improved, and the highways north and east of the Junction have had Environmental Impact Statements (EIS) initiated.

To the southwest of Hoback Junction, reconstruction of U.S. Highway 26/89 in the Snake River Canyon was completed in 2005. The Snake River Canyon reconstruction included nearly 23 miles of roadway from Alpine Junction to a quarter mile from Hoback Junction. The roadway has two 12-foot lanes and 8-foot shoulders with areas of passing lanes and 4-foot shoulders.

Turn lanes to recreation areas were added where needed.

Improvements to U.S. Highway 26/89 north of MP 141.4 are currently being analyzed in the Jackson South to Hoback Junction Environmental Impact Statement (EIS). The two Build Alternatives under consideration in this EIS are a 5-lane and a combination alternative. Both alternatives include 12-foot lanes and wider shoulders.

To the east of Hoback Junction, U.S. Highway 191/189 encompasses a major landslide area and has had an EIS initiated in 2000. Build alternatives under consideration would provide travel lanes and shoulders which are designed to current standards.

1.3 Transportation Needs

1.3.1 Correct Bridge and Roadway Deficiencies

The existing bridge and roadways that pass through Hoback Junction have a number of deficiencies that affect their ability to safely carry a growing number of vehicles. These include:

- **Existing Bridge Deficiencies.** Constructed in 1947 of concrete and steel, the bridge across the Snake River at MP 141.08 is approaching its design life. The west end span was designed with a wooden support structure in an attempt to decrease the weight and avoid aggravating the landslide (see photo). The bridge is not unsafe at the present time, but it is showing signs of aging, has a narrow roadway width, is located partially on an active landslide area, and is within a seismically active area (see Section 1.3.4). Ongoing maintenance has occurred over the past several years and will continue to become more frequent and costly because of the acceleration of deterioration.


Wooden support structure installed due to an active landslide at Snake River bridge (MP 141.08).

The bridge is vulnerable to seismic events because it was not constructed to current seismic standards. The concrete and steel components are corroded, cracked, and rusted. The wooden components are decayed and out-of-plumb.


Entering Hoback Junction, traveling northbound.

- **Hoback Junction Intersection Deficiencies**. The intersection at Hoback Junction is a Y-intersection, with the U.S. Highway 26/89 segment toward Alpine serving as the minor leg. This intersection configuration allows for traffic heading south on U.S. Highway 26/89/189/191 to continue unimpeded to either U.S. Highway 189/191 traveling east, or southwest on U.S. Highway 26/89 to cross the Snake River (see **Figure 1-2** and **Figure 1-4**). Westbound traffic on Highway 189/191 can travel unimpeded to the north at the intersection, but must yield once and stop once before heading southwest. Northbound traffic entering the Junction must stop before continuing north toward Jackson or to the southeast toward Bondurant. Limited sight distance, substandard curves, adjacent land uses, and grade changes contribute to the deficiencies of the intersection.

  Limited sight distance and reaction time make the existing intersection configuration confusing. Because of short sight distances as traffic approaches the intersection, there is a limited amount of time for drivers to determine which direction they need to go. There are no turn lanes or medians within the intersection. This can result in a backup of traffic because vehicles must yield to oncoming traffic before turning. This can be a safety issue because vehicles enter the intersection at higher highway speeds.

  The intersection is constrained by the Snake River to the west and the existing residential

and commercial land uses within the Hoback Junction area. These include a fire station, one gas station/grocery store, an RV park, and other businesses, which are within 150 feet of the roadway. These areas have local access along U.S. Highway 26/89/189/191 just north of the intersection. A residential area is located just south of the intersection with access along the southern leg of the intersection. Vehicles entering and exiting these developments compound the problem of driver confusion at the intersection (see **Figure 1-4**, Existing Intersection at Hoback Junction).

Figure 1-4
Existing Intersection at Hoback Junction

- **Inadequate Shoulder Width.** Currently, highway shoulders in Hoback Junction are two feet wide or less. In most locations, the existing shoulder lacks a sufficient width to safely accommodate emergency vehicles, stopped vehicles, bicyclists, and roadway maintenance activities.

  The American Association of State Highway Transportation Officials (AASHTO) standard shoulder width is eight feet for this type of roadway and traffic volume. According to AASHTO's *A Policy on Geometric Design of Highways and Streets* (2004), a shoulder of this width will accommodate stopped vehicles, emergency use, and bicyclists.

- **Lack of Turning Lanes.** Highways in the study area have two lanes and no turn lanes. Vehicles turning off the highway onto connecting streets and roadside development disrupt traffic flow and create safety problems (see Section 1.3.3). Left-turning vehicles worsen this problem (especially under heavy traffic conditions) because traffic often queues behind the vehicles that are stopped and waiting to turn.

1.3.2 Accommodate Travel Demand

A variety of vehicle types travel through Hoback Junction for multiple trip purposes. Types of trip purposes include personal and job-related business trips, commercial transport of goods,

and recreational travel. The unique travel characteristics of trips result in a wide variety of vehicle types and travel speeds. The study area was evaluated based on its ability to accommodate these trip purposes, traffic volumes, and vehicle classifications for both current and future conditions.

Assessing future conditions requires traffic forecasting. These forecasts are developed by assessing anticipated growth based on local land use plans, U.S. Census Bureau population forecasts, and other socioeconomic data (see Section 3.3). Teton County planning documents provided population, employment, and traffic projections, which factor in the use of alternate modes of transportation.

Population forecasts for Teton County and surrounding counties indicate substantial growth within the area, which will add to the growing travel demand. Based on U.S. Census Bureau data for 2000, population increased over the last decade by 62 percent in Teton County, 14.7 percent in Lincoln County, and 21.3 percent in Sublette County. High housing and land costs in Jackson have led to increased commuting from these neighboring counties, through Hoback Junction, into Jackson. Section 3.3 shows population data for Jackson, Teton County, and surrounding areas.

WYDOT historical traffic data for 1985 to 1999 were analyzed. Historic annual Average Daily Traffic (ADT) indicates that traffic volumes in the study area grow rapidly. Future traffic volumes were forecasted by the WYDOT Planning Division. There is an 85 percent increase projected from 1999 to 2026. The 1999 and 2026 models differ only in regard to shoulder widths; the 1999 volumes assume a 4-foot shoulder, and the 2026 volumes assume an 8-foot shoulder.

WYDOT reassessed its traffic forecasts in 2003 based on updated traffic data and the *Teton County Travel Study* (see Section 3.8). In a letter to the Teton County Planning Director, WYDOT stated that WYDOT's traffic forecasts "were quite conservative and on the low end of the reasonable range of future scenarios" (WYDOT, 2003).

Table 1-1 shows historic and projected 2026 traffic volumes for the three highways that flow into and through Hoback Junction. Since 1985, traffic through Hoback Junction has increased considerably. Traffic projections indicate traffic will continue to grow, with traffic volumes projected to increase by 85 percent from 1999 to 2026.

Table 1-1
Historic and Forecasted Annual Average Daily Traffic Volumes, Roadways Traversing Hoback Junction

Highway	Direction from Junction	1985	1990	1995	1999	2026
US 189/191	West	1,100	1,380	1,910	2,230	4,130
US 26/89	East	1,800	2,490	3,150	3,400	6,290
US 26/89/189/191	North	2,480	3,180	4,540	4,770	8,820

Traffic volumes increase considerably during the peak summer season (June to August), with ADT during those months nearly double than off-season ADT (see Section 3.6.2).

Increases in traffic volumes, combined with intersection deficiencies discussed in Section 1.3.1, will worsen travel conditions at the Hoback Junction intersection. One measure of intersection conditions is Level of Service (LOS) analysis. LOS is a rating of traffic operating conditions that is calculated by comparing traffic volumes to available capacity along a roadway segment or intersection. LOS provides a qualitative definition of the extent of congestion. LOS "A" represents minimal delay and congestion, and LOS "F" represents substantial delay. **Figure 1-5** describes and illustrates the range of LOS ratings for intersections.

The intersection currently functions at LOS B. WYDOT forecasts indicate the intersection will operate at LOS F by 2026 and will have queues of approximately 30 vehicles during the peak hour of travel. Two left-turn movements would be required for the Hoback to Alpine leg, but these movements would be inefficient, unsafe, and also operate at LOS F. The county road serving the area across the Hoback River would become very difficult to exit.

1.3.3 Improve Traffic Safety

Safety for the roadway users, including drivers, passengers, pedestrians, and bicyclists, is of principal importance when analyzing transportation needs and proposing improvements to meet those needs. Analyzing the numbers and types of crashes provides insight on traffic safety issues and potential solutions.

Analysis of nine years of crash data (1995 to 2004) for the study area indicates that the conditions described in the previous sections combine to create safety concerns. **Table 1-2** summarizes this crash data. As traffic volumes continue to increase as projected, the number of crashes likely will increase if no roadway improvements are made.

From 1995 through 2004, 20 crashes occurred at or near the Hoback Junction intersection (MP 163.5-163.6 and MP 141-141.3). Twelve of the 20 crashes were rear end or side swipe and likely occurred because no left turn lane exists. Eighteen of the twenty crashes involved multiple vehicles. The pavement condition was dry for 18 of the 20 crashes, indicating that the crashes were a result of poor turning movements, unsafe speed, or unclear circulation, rather than weather conditions. During the same period, there were 15 crashes on the 0.6-mile roadway segment through the study area, excluding the intersection.

Figure 1-5
Level of Service Definitions

LOS	Intersections
A	No vehicle waits longer than one signal indication.
B	On a rare occasion, vehicles wait through more than one signal indication.
C	Intermittently, vehicles wait through more than one signal indication, occasionally backups may develop, traffic flow still stable and acceptable.
D	Delays at intersections may become extensive, but enough cycles with lower demand occur to permit periodic clearance, preventing excessive backups.
E	Very long queues may create lengthy delays.
F	Backups from locations downstream restrict or prevent movement of vehicles out of approach creating a "gridlock" condition.

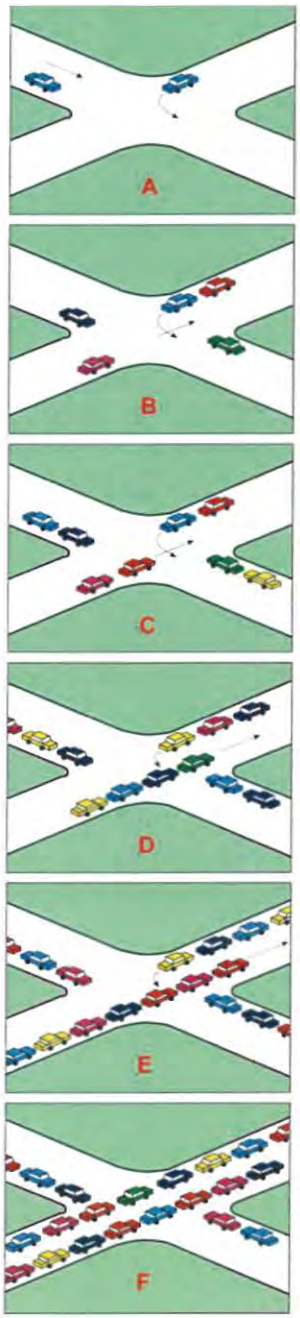


Table 1-2
Crash Data Summary: Year 1995 to 2004

Highway Segment	Location Mile Post (MP)	Road Conditions			Number Persons Injured	Number Persons Killed	PDO Crashes*	Injury Crashes	Fatal Crashes	Total Crashes	Bridge Rail/Bridge Structure	Animal	Other Vehicle	Other
		Wet	Dry	Icy/Snow										
Hoback Junction	140.7-141.3	2	8	5	6	0	11	4	0	15	1	5	4	5
Hoback Junction Intersection	141.3 and 163.7	0	18	2	11	0	11	9	0	20	0	0	18	2

Source: WYDOT crash data, 1995-2004.
* Property damage only; no injuries or fatalities.

The number of accidents peaks during the summer tourist months of July, August, and September, also suggesting these crashes were not related to poor weather conditions. Crash rates peak again in December and January, which could be due to weather conditions and/or an increase in tourist traffic.

One indication of the safety of a roadway is its total crash rate, a measure of the total crashes per million vehicle miles of travel (MVM). For the period of 2001 to 2005, the study area has an average crash rate of 3.04, which is more than double the 2004 statewide average of 1.28 for rural principal arterials.

1.3.4 Reduce Geologic Hazard Potential

Landslides have had considerable impacts on the highways within and near the study area. These impacts have ranged from minor roadway distortions that require periodic maintenance to catastrophic failures resulting in the complete loss of use of the highway.

In 1966, a large landslide that occurred near the confluence of Squaw Creek and the Snake River resulted in the realignment of Highway 26/89/189/191 from approximately MP 147 near Flat Creek to the existing intersection with Henry's Road at approximate MP 142.8. Just southwest of the study area, a large debris flow landslide in 1997 closed U.S. Highway 26/89 in Snake River Canyon for more than a month, resulting in substantial inconvenience to travelers and economic losses to the area.

The occurrence of landslides, like many natural events, is very unpredictable. It is possible to identify potential areas that are prone to landslides, but to predict the exact time of a landslide

is nearly impossible. The main triggering mechanism in the majority of landslides in mountainous regions is an increase in groundwater levels.

Increases in groundwater levels are typically seasonal, with the greatest increases occurring during snow melt and spring rain periods. The seasonal groundwater changes can vary greatly from year to year, depending on the overall precipitation received during the year. Record or near record precipitation throughout much of Wyoming in 1997 resulted in approximately 100 landslides that affected the highway system statewide. To mitigate the effects of these landslides, emergency funding was obtained from the FHWA, and 24 of the worst sites were repaired at a cost of approximately $6.6 million.

Another triggering mechanism for landslides is seismic activity. Although the frequency of landslides triggered by earthquakes is lower than landslides triggered by groundwater level increases, the magnitude of earthquake-triggered landslides is often larger because larger areas are subjected to the increased seismic forces. The Hoback Junction area is in a seismically active area because of its proximity to the volcanically active Yellowstone region and the various fault systems that surround Hoback Junction.

Much of the area surrounding Hoback Junction is comprised of material classified as ancient landslide debris. Ancient landslide debris is defined as earth material that at some time in its history has been subject to mass slope movement. Within these large ancient landslide masses are active slides that can affect nearby roadways.

Information received from the WSGS geologists indicates that these ancient landslides are relatively stable in an undisturbed condition around the Junction. Any excavation within an ancient landslide mass has a potential to create localized instability.

Within the study area, an active landslide exists at the west end of the bridge over the Snake River. The slope movement at this location has contributed to the structural deficiency of the bridge by causing stress on the approach span. This landslide was quite active in the mid 1980s after a series of very wet years. Since the late 1980s the movement has slowed, but slope inclinometers installed in 1999 indicate that the landslide continues to move. The portion of the slide that is adjacent to the bridge will need to be stabilized before a new bridge is constructed. **Figure 1-6** shows the active landslide area.

Figure 1-6
Active Landslide Area

Chapter 2.0 Alternatives

2.1 Introduction

The National Environmental Policy Act (NEPA) requires that a reasonable range of alternatives, including a No-Action Alternative, be presented and evaluated in detail. Reasonable alternatives are those that are practical and feasible from a technical and economical standpoint, and that achieve the Purpose and Need for the project.

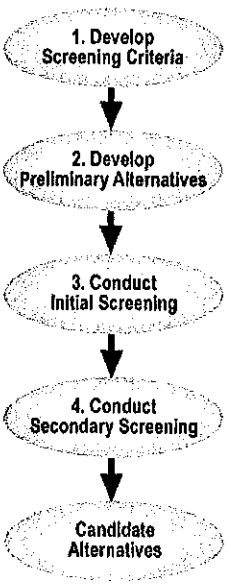
This chapter describes the process used to develop and screen the alternatives to identify those that are fully assessed in this Environmental Assessment (EA).

2.2 Alternatives Development and Screening Process

A four-step alternatives development and screening process was used to identify the candidate alternatives to be studied in detail in this EA (see **Figure 2-1**). The following sections address each of these four steps:

1. Develop screening criteria and indicators
2. Develop preliminary alternatives
3. Conduct initial screening
4. Conduct secondary screening

Figure 2-1
Alternatives Screening Process



The process was inclusive, with input provided by an interdisciplinary (ID) team formed to provide advice throughout the study. The ID Team consisted of 15 members from a range of organizations and agencies to represent a variety of goals and interests. Also, the public provided comments on alternatives via the extensive public involvement program (see Chapter 4.0, Comments and Coordination). The Core Group, comprised of WYDOT and FHWA staff, used this input to develop screening criteria, develop alternatives, and screen alternatives.

2.2.1 Develop Screening Criteria and Indicators

Screening criteria provide a means to compare alternatives and decide which alternatives should be dismissed or advanced to the next step. Developing the screening criteria included consideration of the project Purpose and Need, results of the scoping process (see Chapter 4.0, Comments and Coordination), and the project team's general analysis of the study area issues and constraints. The Core Group, with input from the ID Team, then chose indicators for each criteria. Indicators provide a quantification of the criteria.

The Core Group identified these four criteria:

- Accommodate Transportation Need
- Minimize Long- and Short-Term Impacts (Social)

- Minimize Impacts (Environmental)
- Improve Safety

2.3 Preliminary Alternatives

After selecting screening criteria, the Core Group, with assistance from the ID Team, identified Preliminary Alternatives based on their ability to meet the transportation needs outlined in Chapter 1, Purpose and Need.

Public comment played a particularly large role in contributing to the alternatives development and screening process at Hoback Junction. Therefore, the section below focuses on the comments received from the public and how they were incorporated in the design of the alternatives.

Use of Public Comments in Alternative Design. As discussed in Sections 3.1.3.1 and 4.3.2, Teton County sponsored a design charrette for the Hoback Junction area – an intensive public involvement process used to determine goals and priorities. The community felt the charrette process was a "prime opportunity to work with WYDOT to integrate the community's goals for the roadway with plans for future development" (Teton County, 2002). The public involvement effort yielded the following issues and suggestions concerning the Hoback Junction area:

- A primary concern was improving safety of access into Hoback Junction. Narrow shoulders, lack of vehicle turns, and poor pedestrian accommodation need to be resolved.
- A strong preference was shown for the 3-Lane Urban Alternative in the Hoback Junction area, feeling that this would most closely balance WYDOT objectives with the community's objectives.
- Residents preferred that U.S. Highway 189/191 "T" into U.S. Highway 26/89 to provide more clear and safe circulation.
- Other frequently discussed items included reducing speed of traffic, maintaining community character, maintaining flexibility in development options, and reducing the impacts of the highway on the community and area wildlife.

Design Elements. The following design elements address the concerns discussed above, and were incorporated into the Preliminary Alternatives.

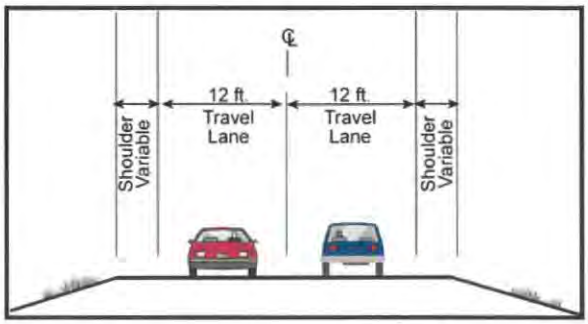
- Intersection Improvements. To improve safety at Hoback Junction, two concepts to reconfigure the existing three-way intersection, the "T" intersection and the roundabout, were considered (see Section 2.3.5).
- Urban Cross-Sections. An urban cross-section has curb and gutter, which serves to slow drivers down as they enter an urban area. Curbs are used extensively on urban streets to control drainage, to discourage vehicles from leaving the pavement, to protect pedestrians, and to promote orderly development along the roadway. Curbs also serve to limit points of access.

- Speed. The design speed for the build alternatives would be 45 miles per hour or less. The posted speed limit is frequently lower than the design speed.
- Pedestrian Crossings. The intersection design options include pedestrian crosswalks (see Section 2.3.5).
- Amenities. The alternatives include accommodations for bicycles and pedestrians and also landscaping opportunities for some design options.

2.3.1 Preliminary Alternatives Typical Cross-Sections

Preliminary Alternative typical cross-sections identified for Hoback Junction include the No-Action, 3-Lane Urban, 5-Lane Urban, and 4-Lane Divided Urban.

Figure 2-2
No-Action Alternative Typical Sections



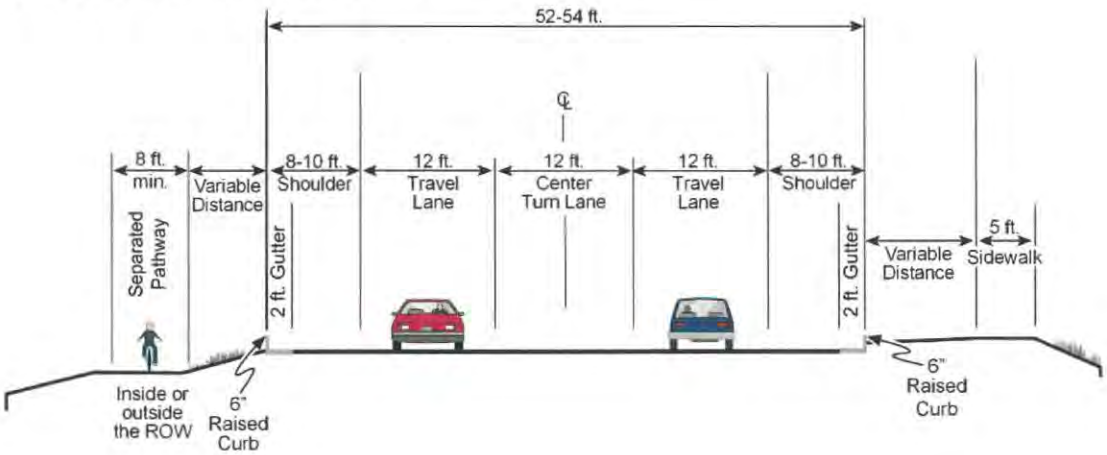
No-Action Alternative

This alternative would retain the existing two-lane configuration and access points, and would only include maintenance activities such as repaving (see **Figure 2-2**).

3-Lane Urban Alternative

The typical cross-section for this alternative has two 12-foot travel lanes and a 12-foot turn lane. The center lane would operate as a turning lane for access to residences and businesses in the Hoback Junction area. Also provided are 8- to 10-foot shoulders, curb and gutter, and a 5-foot sidewalk on the east side and pathway on the west side (see **Figure 2-3**). The 3-Lane cross-section would apply to the bridge and points north, however the bridge would not include a pathway. South of the Snake River bridge, the typical cross-section would have two 12-foot travel lanes and 8-foot shoulders, but no curb and gutter.

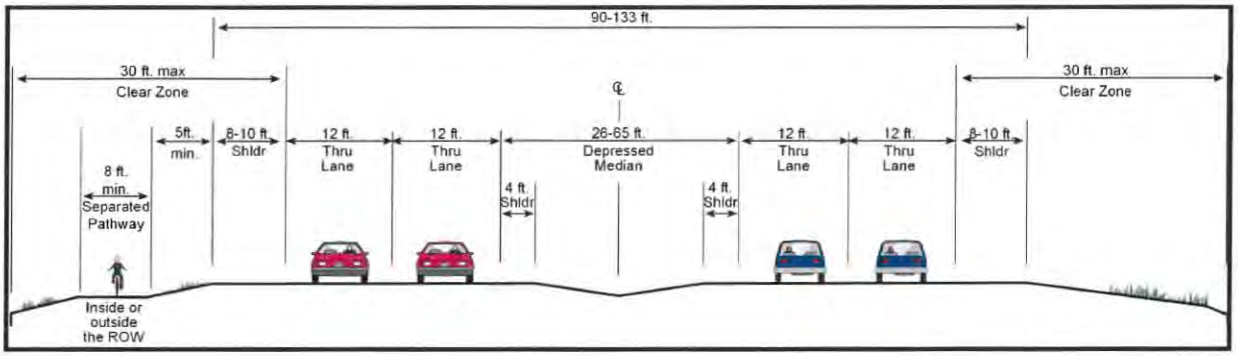
Figure 2-3
3-Lane Urban Alternative Typical Section



4-Lane Divided Urban Alternative

The typical cross-section for this alternative has four lanes with a center median of variable width that separates directions of traffic. The 4-Lane Divided Urban Alternative has the same shoulder, curb and gutter, pathway, and sidewalk widths as the 3-Lane Urban Alternative (see **Figure 2-4**).

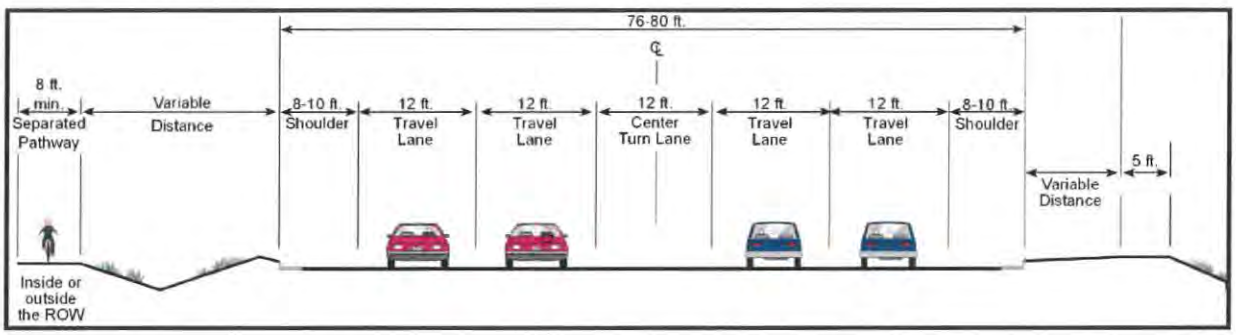
Figure 2-4
4-Lane Divided Urban Alternative Typical Section



5-Lane Urban Alternative

The typical cross-section for this alternative has four lanes with a center turn lane. The 5-Lane Urban Alternative has the same shoulder, curb and gutter, pathway, and sidewalk widths as the 3-Lane Urban Alternative (see **Figure 2-5**).

Figure 2-5
5-Lane Urban Alternative



2.3.2 Conduct Initial Screening

The Preliminary Alternatives were analyzed using the screening criteria and indicators. The Core Group, with input from the ID team, advanced the No-Action and the Preliminary Alternative that scored the highest and dismissed those that did not compare favorably.

All build alternatives evaluated, including the 3-Lane Urban, would accommodate future travel demand. However, the 4-Lane Divided and 5-Lane Urban Alternatives would have the largest impacts on relocations and the natural environment. They also would be inconsistent with recommendations from the design charrette and, therefore, would not be compatible with local planning efforts. Therefore, the 4-Lane Divided and the 5-Lane Urban Alternatives were dismissed from further evaluation.

The No-Action Alternative was advanced as a baseline for environmental analysis. The 3-Lane Urban Alternative would improve traffic operations at the intersection, be fully compatible with Teton County and other plans, and improve safety and efficiency at the intersection. Therefore, the 3-Lane Alternative was identified as the Preferred Alternative.

Table 2-1 contains the results of the initial screening conducted in February 2003.

Table 2-1
Initial Screening Results: Cross-Section Alternatives

Screening Criteria		Cross-Section Alternatives			
		No-Action	**3-Lane Urban**	**5-Lane Urban**	**4-Lane Divided Urban**
Accommodate Transportation Needs					
Indicator	Improves LOS at Intersection	D	C/A*	C	C
Indicator	Compatible with Plans	No	Yes	Meets Mobility and Safety Goals; incompatible with design charrette recommendations	Meets Mobility and Safety Goals; incompatible with design charrette recommendations
Minimize Long- and Short-Term Impacts					
Indicator	Relocations of business or residential	0	1	1	1
Minimize Impacts					
Indicator	Natural Environment (acres)	0	6	7	10
Improve Safety					
	Potential to Reduce Crashes	No	Yes	Would accommodate traffic safety. Pedestrians and bicyclists would be less safe because of additional travel lanes to be crossed.	Would accommodate traffic safety. Pedestrians and bicyclists would be less safe because of additional travel lanes to be crossed.

*Denotes anticipated LOS from "T" intersection/roundabout.

2.3.3 Conduct Secondary Screening

After selection of the 3-lane Urban Alternative as the Preferred Alternative, the following design options were evaluated in a secondary screening:

- Snake River bridge location options.
- Circulation and access configuration options.
- Intersection configuration options.

These design options are not stand-alone alternatives, but components of the 3-Lane Urban Preferred Alternative. Each of these design options are discussed in Sections 2.3.4, and 2.3.5.

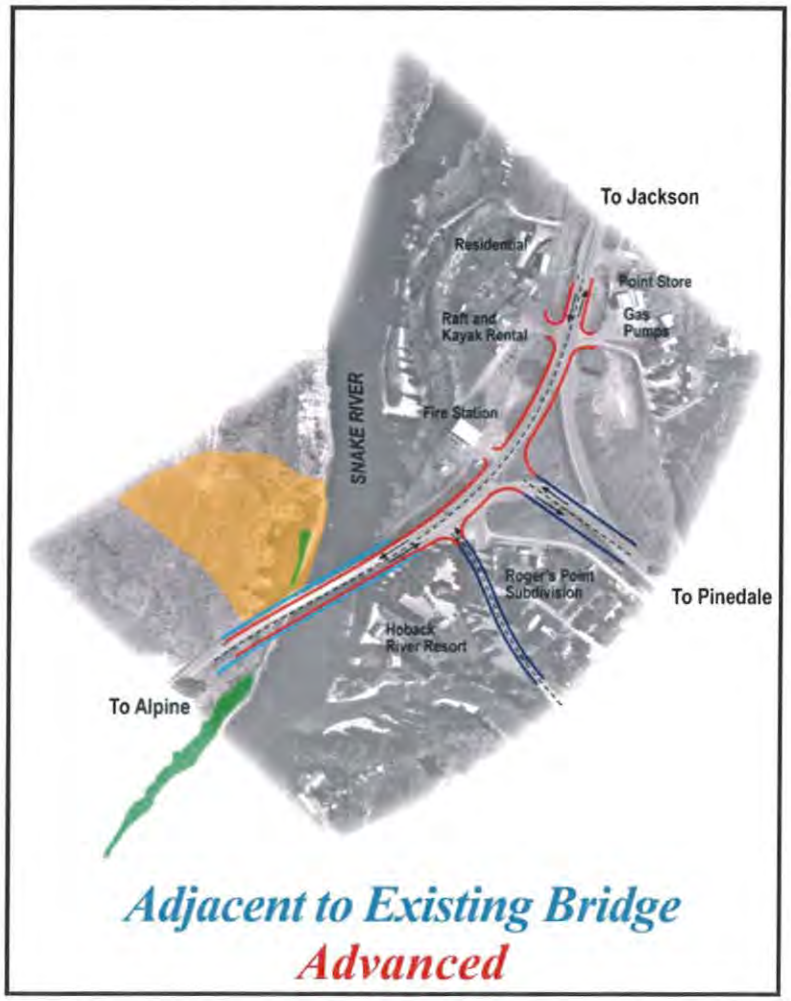
2.3.3.1 Bridge Location Options

The current Snake River bridge is being replaced in part because of the structural deficiencies and the undesirable movement caused by the active landslide movement. The existing roadway width of the bridge is 28 feet with 2 lanes; the new bridge would accommodate three 12-foot lanes, two 8-foot shoulders, and a 5-foot sidewalk. Five bridge location options were evaluated and screened as follows:

Adjacent to Existing Bridge

This option involves constructing a new bridge next to and on the south side of the existing bridge (see **Figure 2-6**). During construction, traffic would use the existing bridge while one half of the new bridge is constructed. Traffic would then switch to the new bridge, the existing bridge would be demolished, and the second half of the new bridge would be completed. This type of staged construction complicates construction activities, increases delays to traffic, and limits the structure type that can be selected.

Figure 2-6
Adjacent to Existing Bridge—Advanced



Parallel South

This option includes placement of a new bridge parallel to and south of the existing bridge (see **Figure 2-7**). The new bridge would minimize disturbance to the existing landslide and would allow the existing bridge to be used while the new bridge is constructed. In the final design process, WYDOT will evaluate the need for retaining walls to minimize encroachments into the Snake River southeast of the proposed structure.

Parallel North

This option includes the placement of a new bridge parallel to and to the north of the existing bridge. The new bridge to the west of the Snake River would encroach on the active landslide.

Diagonal North

With this option, to prevent encroachment of the landslide at the southwest corner of the existing bridge, the horizontal curve approaching the new bridge from the south would be flattened. This alignment would result in the existing bridge being unusable as a traffic route during the construction of the replacement structure. Additional impacts would result from the construction of a temporary detour route.

Perpendicular to River on South

This option shifts the bridge approximately 76 feet south from the existing bridge. The alignment would avoid disturbance of the landslide and allow the existing bridge to be used during construction. A retaining wall approximately 45 feet tall on the southeast corner of the proposed bridge would be required.

Figure 2-7
Parallel South—Advanced

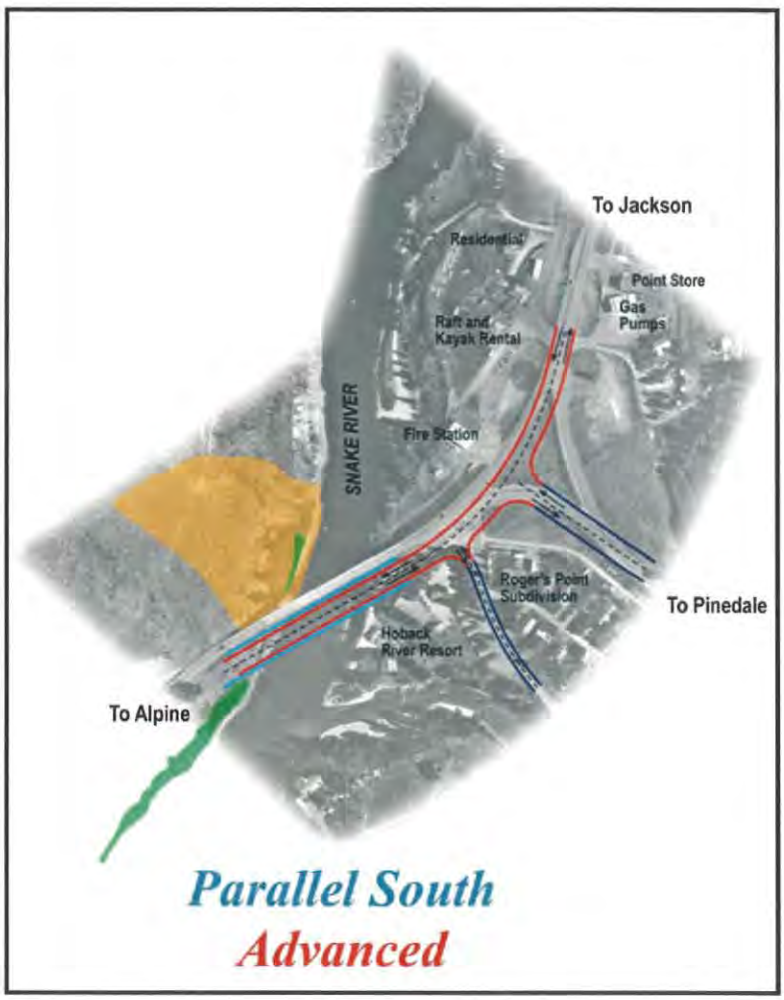


Table 2-2 summarizes the screening of the bridge location options.

Table 2-2
Secondary Screening: Bridge Location

Screening Criteria		Design Options					
		No-Action	Parallel North	Diagonal North	Adjacent to Existing	Parallel South	Perpendicular to River on South
Accommodate Transportation Needs							
Indicator	Compatible with Plans	No	Yes	Yes	Yes	Yes	Yes
Minimize Long and Short-Term Impacts							
Indicator	Relocations (private property impacts)	None	None	None	One anticipated	One anticipated	Two anticipated
Indicator	Construction Period Impacts	None	Minimal delay	Complex construction; moderate to lengthy delay	Extensive construction phasing; moderate delay	Minimal delay	Complex construction; moderate delay
Minimize Impacts							
Indicator	Wildlife/Associated Habitat	None	Yes	None	None	None	None
Indicator	Wetlands	None	Yes	None	None	Impacts anticipated	Impacts anticipated
Indicator	Natural Environment (acres)	No impacts	1.6 wildlife habitat; .02 wetlands	No impacts	No impacts	No impact to wildlife habitat; .02 wetland impacts	No impact to wildlife habitat; .01 wetland impacts
Improve Safety							
Indicator	Minimize Landslide Potential	No	No- would disturb and could destabilize large landslide.	No-would disturb and could destabilize large landslide.	Moderate landslide mitigation required	Minimal landslide mitigation anticipated	Minimal landslide mitigation anticipated

2.3.3.2 Bridge Location Screening Results

The Parallel North, Diagonal North, and Perpendicular to River on South were dismissed from further evaluation. The Parallel North is not a desirable alignment because of encroachment on the active landslide and associated long-term maintenance issues. The Diagonal North would not allow for the existing bridge to be used as a traffic route during construction. The Perpendicular to River on South would require two relocations.

The Adjacent to the Existing Bridge option would have minimal impacts to the natural environment and would minimize encroachments to the landslide area at the southwest corner of the existing bridge. The Parallel to the South Preliminary Option would minimize impacts

during construction because the new bridge could be built while using the existing bridge as a detour, have relatively low impact to wildlife habitat or wetlands, and avoid the landslide located at the southwest corner of the existing bridge. These two options had the most advantages of the five options under consideration. Further design revealed that both options would require soil stabilization and retaining walls resulting in impacts to wetlands for the Parallel South option as well as the Adjacent to Existing option. Because these two options are similar, they were combined into one option for further study. This option is referred to as the Bridge Location Design Option.

2.3.4 Access and Circulation Options

This section describes access and circulation improvement design options considered for the 3-Lane Urban Alternative.

Currently, there are multiple accesses from businesses and residences at Hoback Junction onto the highway. Public input received at Teton County's design charrette for Hoback Junction called for frontage roads to improve connectivity and mobility within the area. The frontage roads would be located between U.S. Highway 89/191 and the commercial businesses and residences that front the highway.

The access improvement options examined are described below.

Do Minimum

The Do Minimum Option would maintain all existing accesses and not add enhancements (see **Figure 2-8**).

1-Lane/1-Way Frontage Roads

This option includes one-lane/one-way frontage roads running parallel to the mainline. Two approaches would be eliminated, and access would be combined with nearby approaches. The east frontage road would be one-way north and the west frontage road would be one-way south. This option has a separation between the curb and gutter and sidewalk, with landscaping opportunities on either side of the sidewalk.

2-Lane/2-Way Frontage Roads

This option includes 2-lane/2-way frontage roads running parallel to the highway. Two approaches would be eliminated and access would be combined with nearby approaches. Access to and from the mainline would be from all four remaining approaches. This option would have the same separation between the curb and gutter with landscaping opportunities described for 1-Lane/1-Way Frontage Roads.

Combine Approaches and Encourage Internal Circulation

This option combines the Do Minimum and the 2-lane/2-way Frontage Roads Options (see **Figure 2-9**). It would eliminate two approaches, similar to the 1-lane/1-way and 2-lane options, but maintain two-way access on all remaining approaches and encourage internal circulation by not formally delineating frontage roads. This option has the same separation between the curb

and gutter with landscaping opportunities as described for 1-Lane/1-Way Frontage Roads. This option would control access and reduce internal speeds.

Figure 2-8
Option A: Do Minimum—Advanced

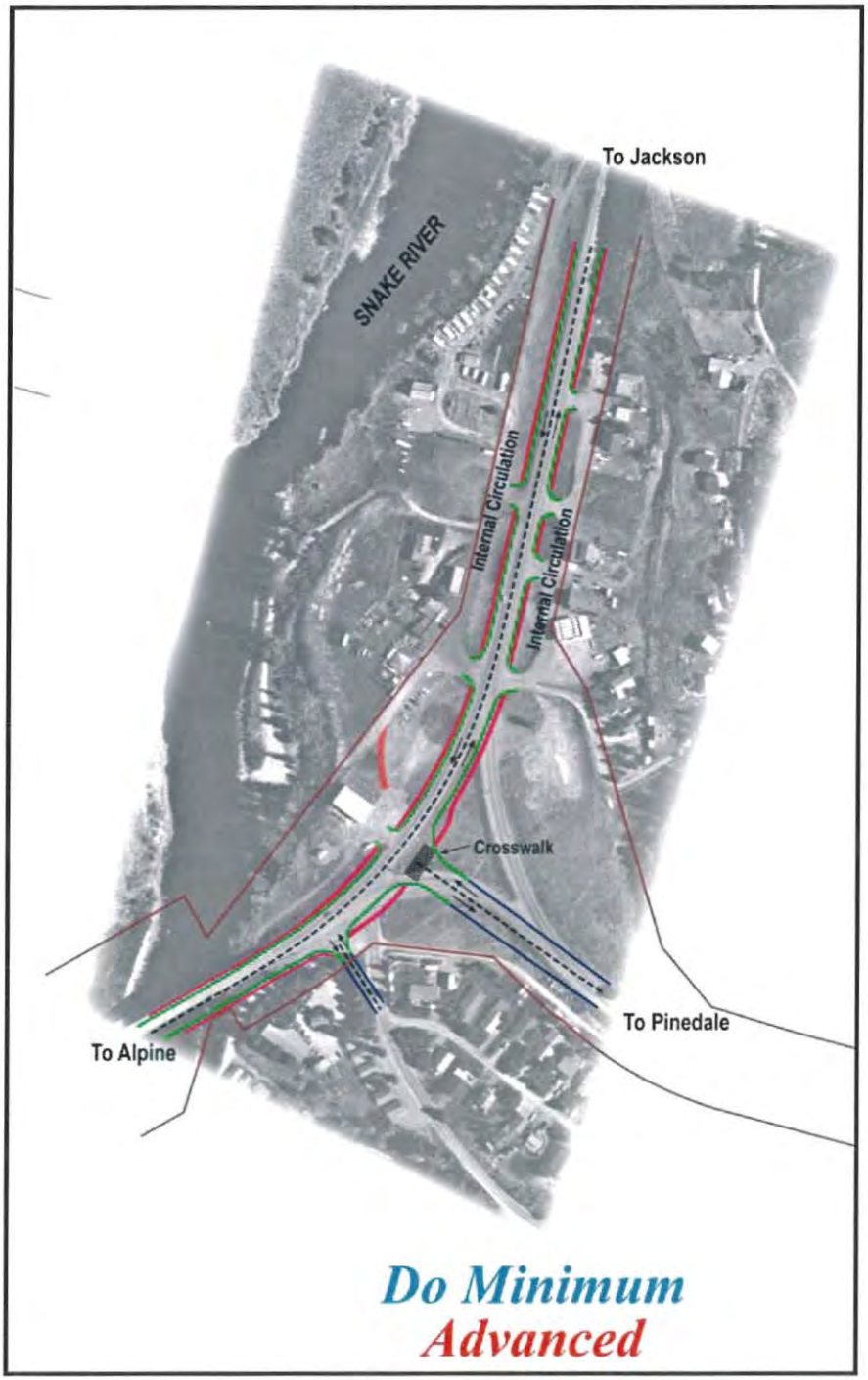


Figure 2-9
Option D: Combine Approaches and Encourage Internal Circulation—Advanced

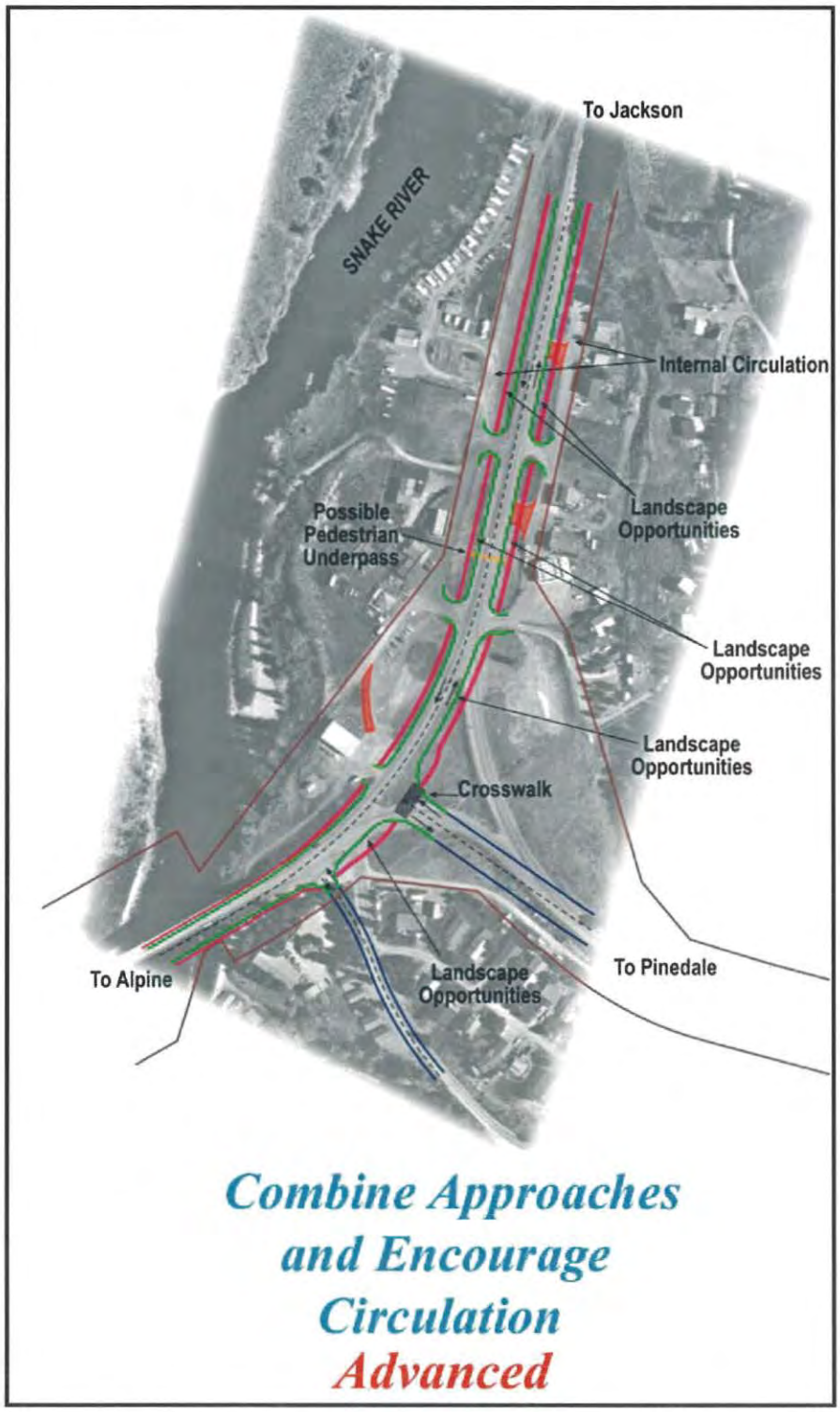


Table 2-3 shows results of the screening analysis.

Table 2-3
Secondary Screening: Access and Circulation Options

Screening Criteria		Option				
		No-Action	**Do Minimum**	**1-Lane/1-Way Frontage Roads**	**2-Lane/ 2-Way Frontage Roads**	**Combine Approaches and Encourage Circulation**
Accommodate Transportation Needs						
Indicator	Compatible with Plans	No	No	Yes	Yes	Yes
Minimize Long and Short-Term Impacts						
	Relocations (ROW Impacts)	No impacts to right-of-way	No impacts to right-of-way	No impacts to right-of-way	No impacts to right-of-way	No impacts to right-of-way
Indicator	Provides Improved Access	No	No	Consolidates access, worsens circulation with internal conflicts	Consolidates access, improves circulation	Reduces access, retains circulation
Improve Safety						
	Potential to Reduce Crashes	No	No	Violates driver expectancy, high potential for wrong-way movements	No. Increases potential for more accidents	Yes. Controls access, reduces internal speeds

Both Frontage Road options would not reduce the potential to reduce crashes and the 1-Lane/1-Way option would worsen circulation with internal conflicts. Therefore, both of these options were dismissed from further analysis.

The Do Minimum and Combine Approaches and Encourage Circulation Options would retain internal circulation. They both were carried forward as part of the Preferred Alternative.

2.3.5 Hoback Junction Intersection Options

To improve safety at Hoback Junction, two design options to reconfigure the existing three-way intersection were considered: a "T" intersection and a roundabout.

"T" Intersection

The "T" intersection would maintain continuous traffic flow between Alpine and Jackson and include a stop sign for westbound traffic using U.S. Highway 189 from Bondurant (see **Figure**

2-10). Projected traffic volumes would not interfere with the capabilities of the "T" stop and would not warrant a traffic signal. The "T" intersection would provide Level of Service (LOS) C by year 2026 at Hoback Junction.

Figure 2-10
"T" Intersection

A proposed crosswalk would provide a connection between sidewalks on either side of US Highway 189 (east to Bondurant). There would be no crosswalk on the through leg from Alpine to Jackson.

Roundabout

Roundabouts are circular intersections with specific design and traffic control features (see **Figure 2-11**). All traffic entering the roundabout would be required to yield, vehicles are channeled into the circular intersection, and the curves are designed to keep travel speeds to less than 30 mph.

The roundabout considered for Hoback Junction is a single-lane roundabout that would function at LOS A in 2026. A roundabout would improve safety over the "T" intersection since it would require all traffic to slow as it enters Hoback Junction. The type of crashes expected with a roundabout are sideswipes which are a less severe type of crash than the angle type of crash expected with a "T" intersection.

Figure 2-11
Roundabout Intersection

Furthermore, drivers would only need to yield to their left, instead of having to check for oncoming traffic in both directions. Crosswalks would be included on all legs (south to Alpine, east to Pinedale, and north to Jackson).

Both intersection options would be constructed within the existing right-of-way.

2.4 Summary

As a result of the screening process, the 3-Lane Urban with several design options was chosen as the Preferred Alternative. These options are:

- A new bridge over the Snake River.
- The option of a Do Minimum or Combine Approaches and Encourage Internal Circulation replacing the multiple accesses.
- A roundabout or "T" intersection to improve the existing three-way intersection.

Chapter 3.0 Affected Environment

This chapter describes the area that may be affected by the alternatives presented in Chapter 2.0 of this Environmental Assessment (EA), impacts that may be associated with the alternatives, and mitigation of those impacts. Information provided for most resources pertains to the Hoback Junction study area. However, where necessary, information for some resources pertains to a broader area encompassed by the original Hoback Junction EIS study area.

3.1 Land Use and Zoning

This section describes current land use and zoning conditions in the study area. The study area begins approximately 130 yards north of the "Y" intersection at Hoback Junction at MP 141.3 on U.S. Highway 26/89/189/191 and terminates south of Hoback Junction at MP 140.7 (see **Figure 3-1**). Hoback Junction is located approximately 12 miles south of the Town of Jackson, the only incorporated municipality in Teton County. "Jackson Hole," as the town is commonly called, refers to a wider area encompassing a 50-mile-long valley that includes the Towns of Jackson, Wilson, Kelly, Moose, Moran, Flagg Ranch, and Hoback Junction. The study area falls entirely within unincorporated Teton County and traverses lands managed by the Bridger-Teton National Forest (BTNF) and private property.

3.1.1 Existing Land Use

Teton County's existing land development pattern can be described as residential development, spread somewhat uniformly over a large area with commercial services concentrated in the Town of Jackson and a few, relatively small nodes of commercial development in the County.

The study area is surrounded by the Bridger-Teton National Forest (BTNF). Land use at Hoback Junction consists of the Hoback River Resort (rental cabins, cottages, and motel rooms) and other small commercial and retail businesses that are surrounded by low-density residential housing (approximately 65 homes). Jackson Hole Fire Station #3 (referred to locally as the Hoback Fire Station) is located within WYDOT right-of-way west of U.S. Highway 89 at the Junction. Southwest of Hoback Junction the roadway crosses the Snake River and continues toward Alpine. Land uses consist of scattered, low-density housing, informal recreation, and several parcels of vacant land. South of these parcels, the roadway travels through forested land managed by the BTNF. This segment of roadway follows the Snake River through areas of steep slopes, grassland, and scattered trees.

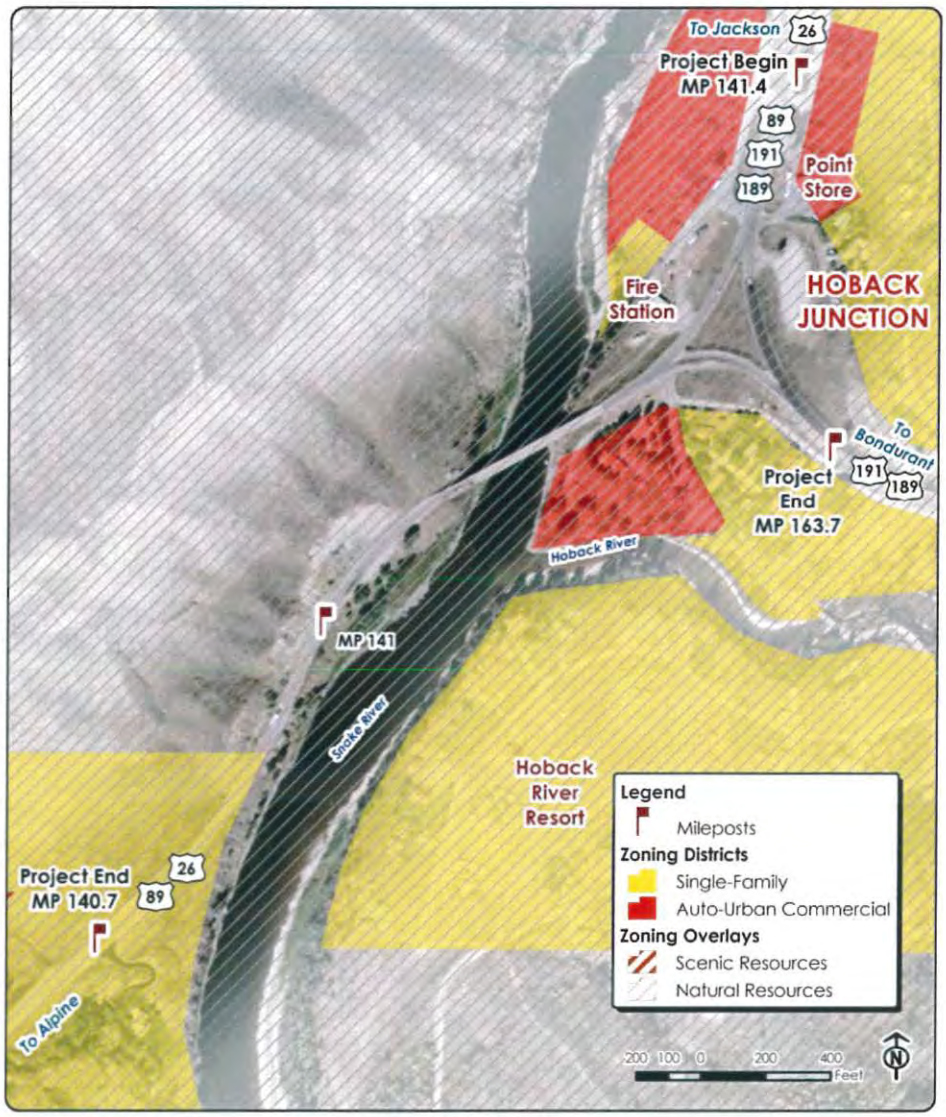
3.1.2 Existing Zoning

Zoning information for Teton County was gathered from Teton County Geographic Information System Parcel Mapping (2006). There are two zoning classifications within the study area; the primary one is Single-Family Residential and the other is Auto-Urban Commercial. **Figure 3-1** shows zoning districts in the study area.

Teton County Zoning District Overlays that guide development in the study area include the Natural Resources Overlay (NRO) and the Scenic Resources Overlay (SRO). According to Teton County Land Development Regulations, the objective of the NRO District is to protect

migration routes and crucial winter ranges of elk, mule deer, and moose; the nesting areas and winter habitat of trumpeter swans and bald eagles; and the spawning areas of cutthroat trout. Development is to be kept outside of the NRO as much as possible to protect the areas that wildlife needs to survive.

Figure 3-1
Zoning Districts and NRO/SRO Zoning Overlay Areas



Source: *Jackson/Teton County Comprehensive Plan*, October 2002

The purpose of the SRO is to preserve and maintain the counties most frequently viewed scenic resources that are important to both its character and the economy. One SRO is located outside of the project area near its terminus of the study area.

The NRO and SRO districts are shown in **Figure 3-1**.

3.1.3 Future Land Use

According to the *Jackson/Teton County Comprehensive Plan* 2002, Teton County's existing land development pattern will likely continue, with greater amounts of residential development occurring in the county than in the Town of Jackson over the next 20 years.

According to the plan, if residential development continues at the same rate and geographical preferences as the last 20 years, in 2020 Teton County will have 60 percent of all homes located in the unincorporated areas of the county. Private development within Teton County is limited by public land ownership including Grand Teton National Park to the north, Grand Targhee National Forest to the west, and the BTNF to the east. Private development is further limited by conservation easements, which total approximately 13,000 acres within the county. This estimate represents approximately 54 percent of the total residential development potential in the unincorporated county according to current zoning. This means that the land available for private development in Teton County is very small relative to the size of the county.

3.1.3.1 Land Use Planning

The following documents were referenced regarding land use planning in the study area, and are discussed below:

- *Jackson/Teton County Comprehensive Plan*, October 2002
- *Hoback Junction Charrette Report*, July 2002
- *Teton County Land Development Regulations*, August 2002
- *Bridger-Teton Land and Resource Management Plan and Final Environmental Impact Statement (FEIS)*, 2002
- *Snake River Resource Management Plan and Final EIS*, September 2003

Jackson/Teton County Comprehensive Plan, October 2002

The *Jackson/Teton County Comprehensive Plan* identifies guiding principles, goals, and objectives for the future of the county. Two of the plan's guiding principles that have direct applications within the study area are the following:

- Teton County's wildlife and scenic resources are a local and national treasure, and, therefore, the community recognizes a stewardship responsibility for their protection. Future development in Teton County will take place in this context.
- The intent of the comprehensive plan is to create conditions for a sustainable visitor-based economy not dependent upon growth, and an economy that reflects the unique, small-town,

western commercial character of Jackson and the outdoor recreational opportunities of Teton County as key components of the visitor experience.

Goals contained in Chapter 8, Transportation, of the plan also have direct applications within the study area. These goals are:

- Goal No.1: To plan for future mobility that meets the needs of residents and tourists within the context of community character.
- Goal No.3: To improve the safety and efficiency of the transportation system in Jackson and Teton County.

Hoback Junction Charrette Report, July 2002

In January 2002, Teton County held a four-day charrette that focused on planning efforts at Hoback Junction. The charrette was led by staff of local design and architecture firms. It included Teton County staff, WYDOT, and the public.

The charrette report identified the desire to use zoning and land use tools within the context of the county's Land Development Regulations (LDRs) to allow for increased density and mixed-use development. This desire envisions preserving "small town" character, resulting in consolidation of transportation infrastructure and providing streetscape improvements and other measures to enhance pedestrian mobility. Primary goals for land use shown in conceptual plans include maintenance of Hoback Junction as small scale and rural in feel, flexibility in development of housing and commercial uses, minimization of transportation impacts, safety for pedestrians and wildlife, and areas set aside for recreation and multiuse pathways.

The Preferred Alternatives drawn from the charrette concluded that minimal pavement was important for maintaining community character while meeting requirements for safety and the free flow of traffic. The final document developed through the charrette was a Community Plan, which is to be used as a tool for future land use and transportation decision-making at the Junction.

Teton County Strategies for Addressing Future Growth, October 2000

Teton County and the Town of Jackson retained an Urban Land Institute (ULI) Panel to conduct a land use study to define the problems and identify recommendations for handling future growth. Specific recommendations included concentrating development in Teton Village, Teton Pines, Wilson, Porter Ranch, and the Rafter J/Melody Ranch/Seherr-Thoss area.

Affordable housing and transportation recommendations made by the panel are discussed further in Section 3.3, Social, of this EA.

Teton County Land Development Regulations, October 2002

The *Teton County Land Development Regulations* guide the use and intensity of development within the study area. Development within the NRO is to be designed to protect the areas wildlife need to survive; therefore, development is to be kept outside of the NRO as much as

possible. Within the SRO, design and landscaping of development are regulated so that development preserves, maintains, and/or complements the county's important scenic resources.

Bridger-Teton National Forest Land and Resource Management Plan, March 1990 (currently under revision)

The Final Environmental Impact Statement (Final EIS) prepared for the *Bridger-Teton National Forest Land and Resource Management Plan* includes guidelines on how to manage forest lands and suggests where various management activities may occur. The Preferred Alternative emphasizes a balance of land uses that protect sensitive areas while promoting recreation and developed uses. Desired Future Conditions (DFC) established for the National Forest are accompanied by a "management prescription" that, if applied, will bring the DFC into existence. The management prescription areas near the study area are defined below and shown on **Figure 3-2**.

- **Backcountry big game hunting, dispersed recreation, and wildlife security areas (12).** This is an area managed for high-quality wildlife habitat and escape cover, big game hunting opportunities, and dispersed recreation activities. It covers a majority of lands adjacent to the study area, with the exception of lands owned by Teton County or other groups.

- **River recreation (3).** An area managed to give river-recreation and scenic-recreation experiences. The emphasis is to protect river segments that have been determined eligible for addition to the national Wild and Scenic River system. This area includes a narrow corridor of land along the Snake and Hoback Rivers, and along portions of U.S. Highway 26/89 and U.S. Highway 189/191. The resource prescriptions, standards, and guidelines that are most pertinent to the study area include the following:

    - Wild and Scenic Rivers Prescription: River segments that have been found to be eligible for inclusion in the Wild and Scenic River system are managed to protect or enhance their wild, scenic, and recreational values.

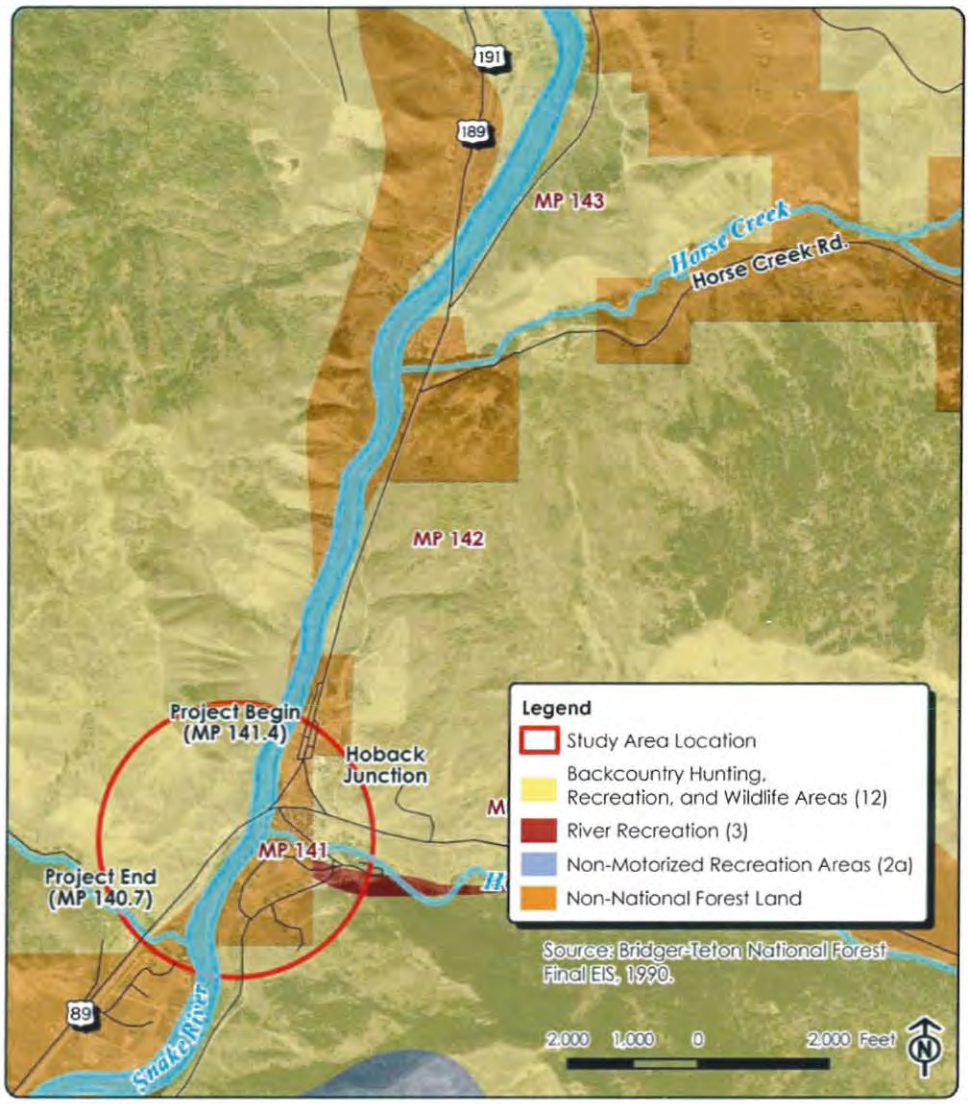
    - Facilities Guideline: Where roads and developed recreation exist, facilities should be provided to enhance existing opportunities. These may include launch ramps, interpretive facilities, camp sites and picnic areas, toilets, and parking areas.

    - Visual Quality Prescription: The Visual Quality Objectives for this area are Retention and Partial Retention. Partial Retention is generally applied to recreation developments that are visually evident but subordinate to the natural landscape.

- **Nonmotorized recreation areas (2A).** This is an unroaded area managed to give a quiet, almost primitive recreation experience. It is located to the south of Hoback Junction within a primarily forested area.

The *Bridger-Teton National Forest Land and Resource Management Plan* and the Final EIS also include guidelines for inventoried roadless areas. Roadless areas are addressed in Section 3.16, Roadless Areas, of this EA.

Figure 3-2
Bridger-Teton National Forest Management Prescription Areas



Source: BTNF

Snake River Resource Management Plan, September 2003

The Final Environmental Impact Statement (Final EIS) prepared for the *Snake River Resource Management Plan* (RMP) provides management direction for approximately 981 acres of public land surface and 15,123 acres of federal mineral estate administered by the Bureau of Land Management (BLM) in the Jackson Hole area of Teton County. The Preferred Alternative

identified by the Final EIS provides for the disposal of some parcels from BLM administration, while ensuring that the lands remain in public ownership and available for recreation, public access, open space, and wildlife habitat.

3.1.4 Impacts

This section describes impacts of the alternatives to existing and planned land uses and consistency with land use plans. Right-of-way impacts are discussed in Section 3.5.2, Impacts. Also, for analysis of potential impacts to community character, refer to Section 3.3, Social.

3.1.4.1 No-Action Alternative

The No-Action Alternative would not affect current growth trends and development patterns. This alternative would do nothing to alleviate the traffic congestion to which continuing development will contribute.

The No-Action Alternative would have no effect on existing zoning designations, zoning overlays, land preserved through land trusts, or Forest Service Desired Future Conditions (DFCs). The No-Action Alternative is consistent with the BTNF's Forest Plan Desired Future Conditions 3 (DFC 3 – River Recreation) and the resource prescriptions, standards, and guidelines that regulate activities within the BTNF.

The No-Action Alternative would not be consistent with Goal No. 1 (to plan for future mobility that meets the needs of residents and tourists within the context of community character) or Goal No. 3 (to improve the safety and efficiency of the transportation system in Jackson and Teton County) in the transportation element of the *Jackson/Teton County Comprehensive Plan,* 2002.

The No-Action Alternative would not be compatible with the following goals of the *Teton County Hoback Junction Charrette Report,* 2002:

- Increase safety for pedestrians, motorists, other travelers, and wildlife.
- Provide safe pedestrian crossings on both highways.
- Consolidate vehicular access points.
- Slow traffic to the minimum practical speed.
- Accommodate turning movements into businesses and residential areas.
- Eliminate dangerous intersections.

3.1.4.2 Preferred Alternative

The Preferred Alternative would require the conversion of a small amount of existing land uses to a transportation use. This alternative would have no effect on existing zoning designations, zoning overlays, land preserved through conservation easements or Forest Service Desired Future Conditions (DFCs). No property would be acquired from the BTNF.

The Preferred Alternative would address safety and deteriorating traffic conditions at the Junction through the addition of intersection improvements. Therefore, this alternative would be consistent with Goals No. 1 and No. 3 in the transportation element of the comprehensive plan. The Preferred Alternative would support the preference for a three-lane cross-section designed to encourage slower speeds, as stated in the Teton County Charrette Report for Hoback Junction.

Design Options

Either the Do Minimum or the Combine Approaches and Encourage Circulation Option would improve connectivity and mobility within the Hoback Junction area and would support concept plans that were developed at the Teton County Charrette for Hoback Junction.

A roundabout would achieve greater reductions in speed than would a "T" intersection design. Therefore, the roundabout concept would more fully support the safety goals presented in the Charrette Report.

3.1.5 Mitigation

No mitigation is required for land use impacts.

3.2 Farmland

3.2.1 Affected Environment

The U.S. Department of Agriculture (USDA) defines Prime Farmland as having the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. Unique Farmland is described as land other than Prime Farmland that is used for the production of specific high-value food and fiber crops. Farmland of Statewide and Local Importance is defined as land which is being used for, or has the potential for, the production of food, feed, fiber, forage, and oilseed crops, but has not been identified as being Prime or Unique.

The National Resource Conservation Service (NRCS) Pinedale Field Office was contacted to determine the types of soils that are considered to be Prime and Unique or of Statewide or Local Importance in the study area. According to the NRCS resource soil scientist, there are no Prime, Unique, or Farmland of Statewide and Local Importance in the study area (see letter dated September 4, 2001, in **Appendix C**).

The Teton County Planning Department was contacted to obtain further information regarding Farmland of Local Importance in the study area. The Teton County Land Development Regulations do not contain any provisions that designate specific locations within the county as being of local importance. Consequently, there are no zones or areas that are restricted from development specifically to protect agricultural operations (see letter dated October 29, 2001, in **Appendix C**).

3.2.2 Impacts

No Prime, Unique, or Farmland of Statewide Importance or Local Importance are located in the study area. Therefore, no farmlands would be impacted by any of the alternatives, and no mitigation is required.

3.3 Social

This section describes population, housing, and other social characteristics of Teton County and surrounding localities. Demographic data of the study area focus on Teton County but extend to include travel characteristics of Sublette and Lincoln Counties to the south and Jackson to the north. The primary sources of information include statistics from the U.S. Census Bureau's *Census 2000*, the *Teton County Comprehensive Plan*, the *Jackson/Teton County Transit Development Plan*, and the Wyoming Department of Administration and Information.

3.3.1 General Population Characteristics

According to the U.S. Census Bureau, the population in Teton County was 18,251 persons in 2000. The populations of Sublette and Lincoln Counties were 5,920 and 14,573, respectively. From 1990 to 2000, Teton County grew approximately 63 percent and Jackson grew approximately 93 percent. These trends are expected to continue in the future.

Table 3-1 shows historical population growth in Teton, Sublette, and Lincoln Counties. Alpine, Wyoming's fastest growing town, experienced rapid growth between 1990 and 2000. This growth, while slowing a bit, is expected to continue through 2020.

Table 3-1
Historical Population Growth in Teton, Sublette, and Lincoln Counties 1990-2000

	1990	2000	% Change 1990-2000
Teton County	11,173	18,251	63.35
Jackson	4,708	8,647	83.67
Sublette County	4,843	5,920	22.24
Pinedale	1,181	1,414	19.73
Lincoln County	12,625	14,573	15.43
Alpine	200	550	175.00

Sources: U.S. Census Bureau.

Because the census data generally do not represent seasonal residents who have second homes in the area (who may not be in residence during the April census survey period), the number of persons residing in Teton County is considerably higher during peak times of the year. However, the residences in the study area are generally not second homes.

3.3.2 Community Facilities

The Hoback Junction fire station is currently located west of U.S. Highway 89 at the Junction, within the study area. The fire station service boundaries include Sublette and Lincoln County lines to the south and west and South Park Loop Road, located approximately eight miles north

of Hoback Junction. Most other community facilities serving Hoback Junction are located in Jackson.

3.3.3 Impacts

3.3.3.1 No-Action Alternative

The No-Action Alternative would not alter population growth trends or development patterns within the area. Residents along the highway could be adversely affected by increased traffic making it more difficult to travel and access property.

3.3.3.2 Preferred Alternative

The Preferred Alternative would address safety and deteriorating traffic conditions at the Junction through the addition of intersection improvements, and replacement of the Snake River Bridge. Impacts to social conditions associated with the Preferred Alternative would include temporary detours along with construction period delays. This alternative is not expected to have a long-term impact on the social conditions of Hoback Junction. This alternative would involve rerouting the access to the Hoback Junction Fire station, which would have no effect on emergency service delivery.

Design Options

Both the Do Minimum and the Combine Approaches and Encourage Circulation options would involve the construction of a pathway and sidewalks, as well as curbs and gutters. These actions would create a safer environment for pedestrians. The Do Minimum Option would improve vehicle and pedestrian safety by providing eight formalized vehicle access points where informal access currently exists. Impacts for the Combine Approaches and Encourage Circulation Option would be the same as those under the Do Minimum Option, except that there would be six formal vehicle access points and landscaping on either side of the sidewalk. Compared to the Do Minimum Option, this option would be safer because of the reduced vehicle access points. Also, the Combine Approach Option would include an opportunity for landscaping. Improvements included with the Combine Approach Option would allow for a more distinct and cohesive community at Hoback Junction.

Both the "T" intersection and roundabout options would create a safer environment for pedestrian and bicyclists, with improved community connectivity than the No-Action Alternative. The roundabout, with slower vehicle speeds, would result in the most improvement in community cohesion.

3.3.4 Mitigation

Because there are no direct or indirect impacts to social conditions, no mitigation is required.

Short-term impacts would occur during construction (see Section 3.22, Construction). Good communication will be maintained with the communities, residents, and emergency service providers regarding road delays, access, and special construction activities.

3.4 Environmental Justice

On February 11, 1994, President Clinton issued Executive Order 12898 (EO 12898), *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,* requiring federal agencies to incorporate consideration of environmental justice into the National Environmental Policy Act (NEPA) evaluation process. The purpose of this order is to ensure that minority and low-income populations and minority-owned businesses do not receive disproportionately high and adverse human health or environmental impacts as a result of federal actions as compared to the surrounding non-minority and non-low-income community. Subsequent DOT and FHWA Orders (DOT Order 5610.2 and FHWA Order 6640.23) have provided guidance on how to incorporate EO 12898 into the NEPA process. As an entity utilizing federal funds, WYDOT is responsible for successfully integrating environmental justice into its program and planning activities. This environmental justice analysis has been prepared in accordance with the guidance provided in these regulations.

3.4.1 Minority Populations

The discussion of minority populations is based on *Census 2000* data at the block level. Census blocks represent the smallest geographic area that displays racial data. Minority populations are comprised of racial and/or ethnic minorities. Mutually exclusive racial classifications used by the U.S. Census Bureau include White, Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, some other race, and two or more races. Hispanic is accounted for under ethnicity and is not listed as a racial category. To identify minority populations, the total population of the census block is then subtracted from the total White, non-Hispanic population of the census block. This value is then compared to the minority population within Teton County.

According to *Census 2000,* nine percent of Teton County residents categorize themselves as minorities. Census blocks with a higher percentage of minorities than the rest of Teton County were evaluated for disproportionately high and adverse impacts.

Census analysis identified one block within the study area with a higher percentage of minorities than the rest of Teton County. The area is located south of Hoback Junction and east of U.S. 26/89 to Alpine and includes primarily single-family homes. Of the 29 persons within the census block, 4 (14 percent) are minority. This area is described in **Table 3-2** and shown in **Figure 3-3.**

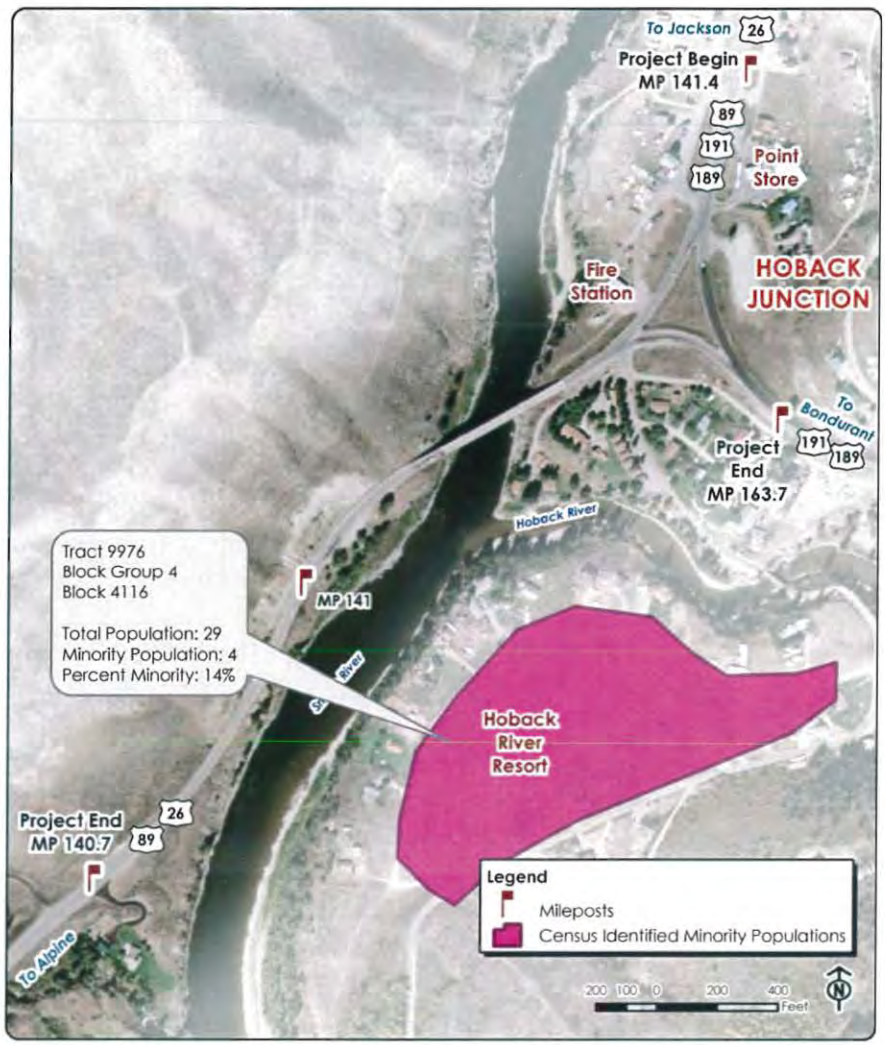
Table 3-2
Census Block with a Higher Percentage of Minorities than Teton County

Census ID	Total Population	Total Minority Population	Percent Minority	Teton County Average	Percent Above County Average
Tract 9976, Block Group 4, Block 4116	29	4	14%	9%	5%

Source: 2000 Decennial Census of Population and Housing.

According to the Interdisciplinary Team (ID Team) business representative for this project, there are no minority-owned businesses in the study area.

Figure 3-3
Minority Populations Within the Study Area



Source: U.S. Census

3.4.2 Low-Income Populations

For purposes of privacy, the census block group (larger than a census block) is the most detailed level of data that displays income information. One block group intersects the study area. The geographic boundaries of this block group extend well outside of the study area (between 5 and 25 miles). Most households within this block group are not located within 0.5 mile of the study area. To identify concentrations of low-income populations, *Census 2000* and Teton County data were used.

FHWA's EO 6640.23 *FHWA Actions to Address Environmental Justice in Minority and Low-Income Populations* defines Low-Income as a household income at or below the Department of Health and Human Services poverty guidelines. The Department of Health and Human Services reports the 2007 national poverty level to be $20,650 for a family of four. Because census income statistics are divided into increments of $5,000, the income threshold of $24,999 is used in this analysis; therefore, any household with an income less than $25,000 is considered a low-income. Within Teton County, 17 percent of the population is considered low-income. In the block group that covers the study area, more than 17 percent of households do not earn less than $25,000, according to census data. Therefore, census data does not indicate concentrations of low-income households within 0.5 mile of the study area.

3.4.3 Additional Data Sources

Because data collected from the U.S. Census Bureau is geographically broad, additional research was conducted to identify minority and low-income residences that may be affected by the proposed action. This research included field investigation, interviewing local property owners, and contacting these local agencies: Teton County Affordable Housing Office, Teton County School District #1, and the Latino Resource Center.

Minority populations identified through census data or other local sources that were evaluated for disproportionately high and adverse impacts are shown in **Figure 3-3**.

3.4.4 Specialized Outreach

Specialized outreach to low-income and minority populations was conducted to obtain comments and concerns regarding the proposed action as part of the original Hoback Junction EIS public involvement process. In addition to traditional communications (press releases, project mailings, newsletters, and open houses), special outreach efforts were made to ensure an increased level of project awareness and participation in the process. Specialized outreach activities included the following:

- Spanish language translation and interpretation upon request for all project mailings and public meetings.
- Targeted newsletter distribution to organizations serving low-income and minority populations.
- Public meetings at locations convenient to study area residents (the Fire Hall at Hoback Junction and WYDOT offices on Evans Road).

These and additional public involvement efforts are detailed in Chapter 4.0, Comments and Coordination.

3.4.5 Impacts

Environmental justice impacts are assessed in terms of potential property acquisitions or relocations, changes in access to employment areas, destruction or disruption of community cohesion or a community's economic vitality, and changes in low-income and minority communities/neighborhoods. Community impacts are measured by changes in the physical environment, such as increases in noise levels, air pollution levels, and the presence or introduction of hazardous materials.

3.4.5.1 No-Action Alternative

The No-Action Alternative would not result in disproportionately high and adverse impacts to minority and low-income populations in the study area. Traffic conditions would worsen at the Junction, hindering access to housing, businesses, and community facilities and services for minority populations, as well as the overall community. The No-Action Alternative would increase the crash potential at the Junction due to excessive queues and delays, inefficiency, and unsafe left turns required for the Hoback to Alpine traffic.

3.4.5.2 Preferred Alternative

The Preferred Alternative could require the relocation of one business – the Hoback River Resort. There would be no displacement of minority and low-income residents, businesses, or employees under the Preferred Alternative.

The Preferred Alternative would address safety and deteriorating traffic conditions at the Junction through the addition of intersection improvements, and replacement of the Snake River Bridge. This would benefit both minority and non-minority residents near the Junction. Because only one residence immediately south of Hoback Junction would experience noise levels above 65dbA, there would be no disproportionate impacts due to increasing noise levels. In summary, the Preferred Alternative would not result in disproportionately high and adverse effects to low-income or minority populations.

Design Options

Both the Do Minimum and the Combine Approaches and Encourage Circulation Options would benefit the community as a whole by improving connectivity and mobility within the Hoback Junction area.

At the Junction, a roundabout would achieve greater reductions in speed than would a "T" intersection design and would provide greater safety benefits to area residents.

3.4.6 Mitigation

Because there are no disproportionately high and adverse impacts to minority or low-income populations, no mitigation is required.

3.5 Right-of-Way and Relocations

Right-of-way owned by WYDOT in the study area ranges between 200 to 400 feet from the roadway centerline.

3.5.1 Methods

To estimate right-of-way impacts, WYDOT superimposed the preliminary construction limits from the Preferred Alternative on top of aerial photographs showing existing right-of-way boundaries. Areas where the construction limits fell outside of existing WYDOT right-of-way were included in calculations for right-of-way needs. More detailed design and additional impact avoidance will likely result in modifications to these estimates.

3.5.2 Impacts

3.5.2.1 No-Action Alternative

The No-Action Alternative would not result in displacements or require additional right-of-way.

3.5.2.2 Preferred Alternative

Most of the proposed highway improvements would occur within existing WYDOT right-of-way. However, additional right-of-way would be required in certain locations, and one business relocation is anticipated. In its preliminary design, WYDOT has attempted to minimize impacts to residences and businesses.

The Preferred Alternative would require the displacement of one business—the Hoback River Resort—and approximately 1.2 acres of additional right-of-way.

3.5.3 Mitigation

Right-of-way acquisition would comply with the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970, as amended. The purpose of this act is to provide uniform and equitable treatment of all persons displaced from their homes, businesses, or farms. The Uniform Act requires that persons to be displaced be provided with information they will need to minimize the disruption of moving and maximize the likelihood of a successful relocation. Owners of property to be acquired will be compensated at fair market value for their property. Relocation assistance payments are designed to compensate displaced persons for costs that are the result of acquisition of the property upon which they reside.

All reasonable opportunities to avoid relocations and minimize the acquisition or impacts to private property will be taken during the design stage.

3.6 Economic

The highways within the study area are designated as principal arterials, which are essential to the safe and efficient transport of goods and people through western Wyoming. Consequently, highway conditions play an important role in the overall economic vitality of the region. This section describes economic trends in Teton County and surrounding areas. Data sources include the U.S. Census Bureau, U.S. Department of Labor-Bureau of Labor Statistics, U.S. Department of Commerce-Bureau of Economic Analysis, Wyoming Department of Labor and Employment, Wyoming Department of Administration and Statistics, Teton County, and the Town of Jackson.

3.6.1 Employment, Income, and Industry

Wyoming State and Teton, Lincoln, and Sublette County employment and income statistics for the period from 1990 to 2004 are shown in **Table 3-3**.

According to the U.S. Department of Labor–Bureau of Labor Statistics, the Teton County labor force (which includes population 16 years old and over) grew from 8,221 workers in 1990 to 13,972 workers in 2004. This represents an increase of approximately 70 percent over the 10-year period. The growth in the labor force between 1990 and 2004 is shown for each county in **Figure 3-4**.

Between 1990 and 2004, unemployment rates in Lincoln and Sublette Counties decreased substantially (by 2.4 percent and 0.4 percent respectively). In Teton County, however, unemployment rates increased by 1.3 percent. The observed increase in unemployment may in part be attributed to the nationwide decrease in tourism during those years (see Sections 3.6.2 and 3.6.3).

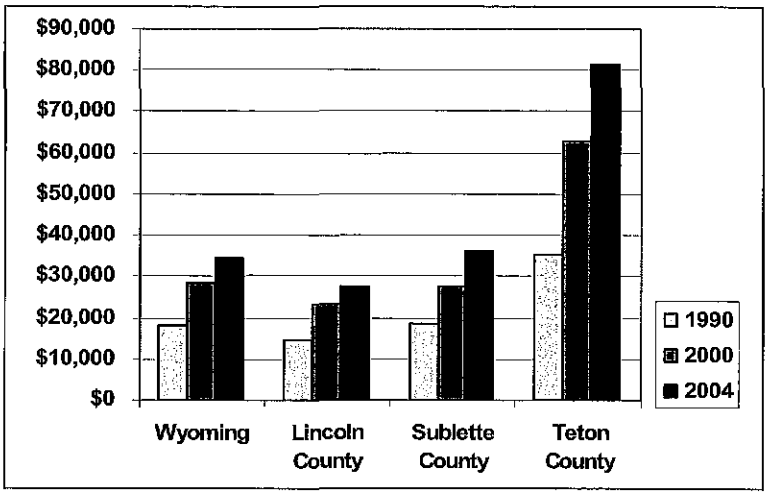
Table 3-3
Employment and Income Statistics, 1990 to 2004

	Labor Force	Unemployment Rate	Per Capita Income
Wyoming			
1990	236,043	5.3	$18,002
2000	266,862	3.8	$28,460
2004	281,847	3.9	$34,279
Percent Change	**19%**	**-.26%**	**90%**
Lincoln County			
1990	5,778	6.3	$14,454
2000	7,357	3.9	$23,057
2004	8,213	3.9	$27,384
Percent Change	**42%**	**-38%**	**89%**
Sublette County			
1990	2,665	2.7	$18,644
2000	3,558	2.9	$27,678
2004	4,603	2.3	$36,348
Percent Change	**73%**	**-15%**	**95%**
Teton County			
1990	8,221	2.0	$35,318
2000	14,182	2.4	$62,831
2004	13,972	3.3	$81,231
Percent Change	**70%**	**65%**	**130%**

Sources: Bureau of Labor Statistics—Local Area Unemployment (LAUS) Statistics, 1990-2004;
Bureau of Economic Analysis—Local Area Annual Estimates, 2000-2004.

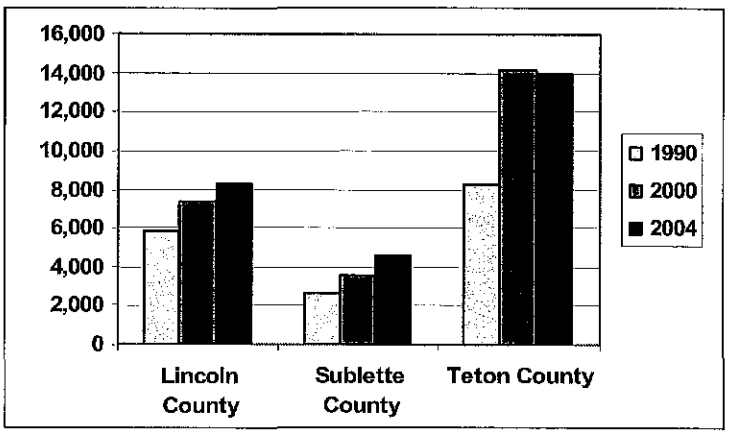
As shown in **Table 3-3,** Teton County has, by a large margin, the highest per capita income in the state of Wyoming, with a 2004 per capita income of $81,231. Per capita income in Teton County was 58 percent higher than the state of Wyoming in 2004. The increase in per capita income between 1990 and 2004 is shown for each county and the state of Wyoming in **Figure 3-5**. Nationally, the Community Housing Forum (May 2000) indicated that Teton County ranks #1 of all U.S. counties in terms of average dividend income and sources of "other income" (sole proprietor, capital gains, and IRA income). Between 1990 and 2004, employment, labor force, and per capita income grew faster in Teton County than in the state of Wyoming overall.

Figure 3-4
Per Capita Income (1990 to 2004)



Source: U.S. Department of Labor-Bureau of Labor Statistics.

Figure 3-5
Labor Force (1990 to 2004)



Source: U.S. Census.

Between 1990 and 2000 Teton County's largest employment was the services industry. Retail and wholesale trade also represent a large portion of total employment within the county. The services, retail, and wholesale industries rely heavily on tourism revenue. Between 1990 and 2000, the most substantial shift in employment occurred in the construction industry. This is primarily attributable to rise in housing starts, which increased construction-related jobs by 99.5 percent. Teton County employment by industry is shown in **Table 3-4**.

Major employers in Teton County include Grand Targhee Resort, Grand Teton National Park, Jackson Hole Mountain Resort, and Snow King Resort in Jackson. In addition to providing regional employment opportunities, these resorts contribute greatly to the economic vitality of the county. St. John's Medical Center, the Teton County School District, and the Jackson State

Bank are other primary employers in the region. Commercial activity in the study area includes a Hoback Market, a gas station, raft and kayak rental, and the Hoback River Resort (rental cabins, cottages, and motel rooms).

Table 3-4
Teton County Employment by Industry, 1990 to 2000

Job Sector	Teton County Employment				Percent Change
	1990	Percent	2000	Percent	1990 to 2000
Services	3,956	38.3	6,464	39.3	63.4
Retail Trade	1,470	22.2	3,664	22.3	36.7
Construction	1,221	11.8	2,437	14.8	99.5
Finance, Insurance, Real Estate	451	4.4	623	3.8	38.1
Government	1,249	12.2	1,955	11.9	56.5
All Other	767	7.5	1,289	7.8	68.0
Total	10,324	100.0	16,432	100.0	59.2

Note: Total employment in Table 3-4 differs from that in Table 3-3. Complete industry statistics are not available from the Bureau of Labor Statistics. For the purposes of consistency, different sources were utilized for each table.
Source: Wyoming Department of Employment, Research and Statistics 1990 and 2000.

3.6.2 Tourism

Tourism and travel in Teton County is a vital link to the economic stability of the region. In 2004, travel spending in Teton County totaled $471 million, and total earnings (including wage and salary disbursements, other earned income, and proprietor income) were $153 million *(Wyoming Travel Industry, 2004 Impact Report)*. According to the report, tourism contributes 28,640 direct full-time and part-time jobs to the Wyoming economy.

Jackson's resort industry and proximity to the Grand Teton and Yellowstone National Parks; the National Elk Refuge; and the Jackson Hole, Grand Targhee, and Snow King ski areas make tourism the major contributor to the area's economy. Jackson Hole, Grand Targhee, and Snow King ski areas create the opportunity for more year-round employment. According to the 2002 *Jackson/Teton County Comprehensive Plan*, all three ski resorts have expansion potential and expansion plans.

U.S. Census Bureau statistics indicate that there were 2.5 million visitors to Grand Teton National Park in 2001. From 2001 to 2002, Grand Teton experienced a 2.1 percent decrease in the number of visitors. During the same time period, Yellowstone National Park experienced a 2.8 percent decrease in tourists. These statistics reflect the national economic downturn in tourism during that period.

3.6.3 Commuting Trends

Local employment conditions in Teton County have been characterized by a growth in employment and a lack of affordable housing (see Section 3.3, Social Conditions, for a description of housing conditions in Teton County). This trend has led to an out-migration of residents and an increase in the number of commuters from surrounding counties in Wyoming and eastern Idaho.

Trip characteristics documented in the *Teton County Travel Study of 2001* (National Research Center, 2001) showed that since 1996 the number of trips made per person had increased from 4.7 trips on average per person per day to 6.5 trips. Likewise, the number of miles traveled on average per person per day had grown, from 24.4 miles in 1996 to 32.5 miles in 2001.

The number of persons commuting to a place of work in 1990 and 2000 is listed in **Table 3-5**. The number of persons living in Teton County, Idaho, and working outside the state increased from 362 to 1,060, an increase of nearly 200 percent. The number of intercounty commuters from Lincoln County nearly tripled, increasing from 358 to 1087. The number of intercounty Wyoming commuters from Sublette County increased from 235 to 309, a more than 30 percent increase. Although not all of these commuters are traveling to Teton County, the vast majority are commuting to jobs in the Jackson area.

Table 3-5
Intercounty Commuters, 1990 and 2000

County	1990	2000	Percent Change 1990-2000
Lincoln County	358	1,087	203.6%
Sublette County	235	309	31.5%
Total	**955**	**2,456**	**157.2%**

Source: U.S. Census Bureau, 1990 and 2000.

The increases in intercounty and interstate commuting are contributing to the increased traffic volumes and congestion on many of the highways in Teton County. This trend is expected to continue unless substantial affordable housing is made available in Teton County.

3.6.4 Impacts

3.6.4.1 No-Action Alternative

The No-Action Alternative would not directly affect regional or local economic conditions or development patterns. The No-Action Alternative would not meet existing or future transportation needs outlined in Chapter 1.0 of this EA.

Worsening safety and traffic conditions would also hinder access to businesses and local services. This could detract from tourists' enjoyment of the area and may discourage some recreational pursuits. Although some visitors may change their travel plans because of increased congestion and travel times, most tourists who are intent upon going to Jackson, local resorts, or Grand Teton/Yellowstone National Parks would continue to do so. Therefore, retail sales, visitor days, and other economic activity related to tourism are expected to continue increasing under the No-Action Alternative, although at slightly reduced levels compared to the Preferred Alternative.

The No-Action Alternative would not improve access to employment locations. Increased congestion and travel times would burden workers commuting to Jackson from Alpine, Bondurant, or other southern origins. This could create a hardship for the businesses that employ these workers in terms of employee reliability and desirability of employment.

Since the No-Action Alternative would not address safety issues, the number of accidents would continue to increase, as would the economic costs associated with these accidents.

Under the No-Action Alternative, the Hoback Junction intersection would operate at LOS D by 2026. Employees and patrons accessing businesses and services at the Junction would experience increasing delays, inefficiencies, and safety issues.

3.6.4.2 Preferred Alternative

The Preferred Alternative would address safety and deteriorating traffic conditions at the Junction and improve access to area businesses and services. Because this alternative is designed to encourage slower speeds, safety conditions at the Junction would improve, as would the economic costs associated with accidents.

The Preferred Alternative may require the displacement of one business—the Hoback River Resort. Construction of this alternative would require traffic detours. Resulting travel delays would adversely affect commuter and tourist travel as well as freight transport.

The Preferred Alternative would temporarily boost the local economy by providing employment for construction workers and purchases of construction material. Benefits could include temporary increased wages and retail sales to local businesses, partially offsetting any lost revenue from construction-related detours and delays.

3.6.4.3 Design Options

The Combine Approaches and Encourage Circulation Option would consolidate business access, which would improve safety and mobility. The roundabout concept is expected to provide greater safety improvements at the Junction than the "T" intersection would (see Section 2.3.5, Hoback Junction Intersection Options) and, therefore, is expected to reduce costs associated with accidents.

3.6.5 Mitigation

Section 3.5, Right-of-Way and Relocations, includes mitigation measures for displaced businesses. No other mitigation is required.

3.7 Parks and Recreation Resources

3.7.1 Affected Environment

The study area and surrounding areas have an abundance of recreation resources. Formal and informal recreation areas are located within the BTNF. There are no formally designated parks within the study area.

Recreation sites surrounding (outside of) the study area include Yellowstone, Grand Teton National Park, Grand Targhee Ski Resort, Jackson Hole Mountain Ski Resort, and Snow King Ski Area.

Recreational activities within or near the study area occur year-round; however, most are concentrated from Memorial Day through Labor Day. Peak use varies by activity, but is generally greatest during the summer season. Recreational activities in the study area that can be accessed from the highway include:

- River floating (non-motorized boats, rafts, kayaks, canoes)
- Scenic driving
- Horseback riding
- Hiking
- Biking
- Hunting
- Fishing

Boat use consists of outfitted and nonoutfitted raft use, outfitted kayaking, and outfitted and nonoutfitted float fishing. Commercially guided scenic floating, rafting, and fishing trips are popular along the Snake River within the study area. White water rafting occurs primarily on the Snake River south of the study area. Anglers use these sections of the Hoback and Snake Rivers because it is easy to float or wade.

The USFS regulates commercial, competitive, and group use in river segments below the South Park Bridge through a permit system. Private citizens can float the river any time without a permit. In 1973, an estimated 24,300 people floated the Snake River. In 1995, the use peaked at an estimated 159,200 floaters, and then decreased to 140,230 in 2004. The decrease in use since 2000 is attributable to the adoption of the *Snake River Resource Management Plan* and the delays related to the recently completed Snake River Canyon highway project.

3.7.2 Impacts

There are no designated parks within the study area; therefore, this section addresses impacts to recreation resources only.

3.7.2.1 No-Action Alternative

The No-Action Alternative would have no direct impact on recreational facilities in the study area. Increased traffic congestion during peak hours and high tourism periods could impact the recreational experience.

3.7.2.2 Preferred Alternative

The Preferred Alternative would improve traffic flow, safety, and accessibility for recreationists within the study area.

Visual impacts to recreational activities would occur with the Preferred Alternative (see Section 3.21.2, Impacts. Retaining walls necessary for the Preferred Alternative would be visible both from the road and from the Snake River.

3.7.3 Mitigation

Visual impacts to recreational activities would be reduced by minimizing the length and use of retaining walls, and designing the walls such that they blend into the environment. This would be accomplished by using colored and textured surfaces and transitioning into the adjacent landforms. Areas below and above the walls would be revegetated as practical and feasible. WYDOT would coordinate the aesthetic treatment of the walls with the design advisory group during the final design phase.

3.8 Transportation

3.8.1 Transportation Planning

Transportation planning along U.S. Highway 26/89/189/191 has been addressed in local, state, and federal plans. The *Jackson/Teton County Comprehensive Plan* (October 2002) states that future traffic volumes from continuing auto-dominated travel behavior and dispersed development patterns will far exceed available roadway capacity. The transportation component of the plan as discussed in Section 3.1.3.1, Land Use Planning, Goals 1 and 3 calls for improved safety and efficiency.

Table 3-6
State Transportation Improvement Program (STIP), Fiscal Year 2007

Project Location	Mileposts	Activity	Fiscal Year
Snake River Bridge North and South	140.69-141.45	Reconstruction	2010
Hoback Junction Enhancement	140.69-141.45	Enhancements	2010
Snake River Bridge	141.08-141.08	Bridge Replacement	2010

Source: Wyoming Department of Transportation FY 2007 STIP.

WYDOT's *Statewide Long Range Transportation Plan* (August 2005) provides policy guidance to the department in fulfilling its mission "to provide a safe, high quality, and efficient transportation system." The State Transportation Improvement Program (STIP) is a component of the long-range plan and outlines spending priorities for the next six years. The 2007 STIP provides funds to reconstruct the Snake River Bridge near Hoback Junction and provide enhancements such as landscaping and pathways (see **Table 3-6**).

3.8.2 Existing and Future Traffic Conditions

Roadway Classification

Roadways are grouped according to the relative importance of the movement and access functions provided on the facility. Higher functional classifications are assigned to roadways that provide regional mobility at higher speeds with more restrictive access control. Those roadways that provide access to adjacent properties are generally assigned a low functional classification and typically have low speeds and lenient access controls.

The current configuration of U.S. 26/89/189/191 is generally comprised of two 12-foot lanes with variable shoulder widths. It is classified as Rural Principal Arterial and is on the National Highway System. The arterials serve movements having trip length and travel density characteristics indicative of interstate travel, with high access control and high mobility. The primary purpose of the Rural Principal Arterial is the safe and efficient movement of goods and people. The American Association of State Highway and Transportation Officials (AASHTO) guidelines call for this type of highway to be designed to at least Level of Service (LOS) C. See Section 1.3.2, Accommodate Travel Demand, for existing traffic volumes and LOS descriptions.

Existing and Future Traffic Volumes

U.S. Highway 89/191 carries commuter, tourist, and commercial traffic to and from Jackson. Commuter traffic has increased with growth in outlying "bedroom" communities. Recreation destinations include Yellowstone, Grand Teton National Park, Grand Targhee Ski Resort, Jackson Hole Mountain Ski Resort, and the Snow King Ski Area. During the summer months, buses carrying recreational rafters use the route to access the Snake River. Commercial traffic uses U.S. Highway 89/191 year-round to provide goods and services to Jackson.

Annual Average Daily Traffic (AADT) is defined as the total traffic for the year divided by 365 (number of days in a year). The AADT for 1999 along U.S. 189/191 leading north to the Junction was 3,400 and is projected to increase 6,290 by 2026. Also, traffic data indicate that traffic volumes increase by 63 percent during the peak season, which spans from June to August. As discussed in Section 1.3.2, Accommodate Travel Demand, this traffic increase likely will lead to increased safety issues along the study area (see Section 1.3.3, Improve Traffic Safety).

Access

The *WYDOT Access Manual: Rules and Regulations and Policy for Accesses to Wyoming State Highways* (2005) has different access control standards depending on the highway classification and the type of entrance. Since Rural Principal Arterials accommodate statewide or interstate travel, they typically have high access control. Within urban areas such as the Junction that have speeds under 45 mph, the standards call for access points to be no closer than 330 feet from any other access.

Presently, there is unrestricted and numerous access to private properties within the Hoback Junction study area. Many of these accesses double as areas for emergency stopping or winter

maintenance activities. Inadequate access geometry or poor stopping distance and locations of mailboxes cause unexpected turning movements that diminish the highway's safety. In addition, traffic often queues while vehicles stop and wait to turn.

3.8.3 Existing Public Transit Facilities

START is a public bus service funded partially by the Town of Jackson, Teton County, and the federal government. The service has been in operation since 1987. Ridership has increased considerably, from approximately 150,000 passengers per year in 1993 to 644,000 riders per year through May 2007 (START 2007). Over the past three years, total ridership has increased approximately 72 percent. The majority of these riders are winter visitors traveling daily between Jackson and Teton Village. In June 2005, START won the annual "Transit System of the Year" award for its increased ridership and exceptional service to the community.

START distributed a transit survey in 2003 to residents of Alpine, Star Valley, and Afton to help estimate the demand for bus service to Jackson. The results helped to determine the appropriate location, timing, and frequency of buses at future transit stops. Based on the survey, START began four runs a day between Alpine and Jackson in December 2003 – two in the AM rush hour and two in the PM rush hour. The two buses collectively carry roughly 60 passengers to Jackson each morning. As **Table 3-7** shows, ridership has increased steadily over the past three years. The bus service will stop in Hoback Junction to pick up waiting riders.

Table 3-7
START Ridership Numbers: Alpine to Jackson Commuter Service

Year	Pick-Up Location	
	Alpine	Hoback
2004	12,999	250
2005	17,192	605
2006	17,414	109
Jan-Apr 2007	5,787	24

Source: START, Teton County.

The Alpine commuter route is being funded through the fares collected and through a Federal Transit Administration (FTA) intercity grant through WYDOT. The fares cover a majority of the cost.

In Chapter 8 of the *Jackson/Teton County Comprehensive Plan* (2002), the feasibility of START expanding and maintaining service to the area was identified as a need for further analysis. The Jackson Hole, Alpine, and Star Valley areas have commuters who travel from outlying areas into Jackson Hole. The high cost of living has forced workers to live outside of the area and commute by automobile, a trend expected to continue. According to the *Jackson/Teton County Transit Development Plan*, a park-n-ride is tentatively planned in the Hoback Junction area.

3.8.4 Bicyclist and Pedestrian Facilities

Bicycle and Pedestrian Facility Planning

Information on pedestrian and bicycle facilities in the study area was compiled from state and local planning sources, including Teton County and Town of Jackson.

According to the *Jackson/Teton County Comprehensive Plan*, walking and bicycling usage in Teton County is comparatively low for a mountain community. Counts taken in July 1996 (peak

season) indicate that walking and bicycling make up 9 percent and 6 percent of the mode share, respectively, reflecting the limited facilities available. The *Teton County Travel Study*, 2001 noted that bicycling is most commonly used for trips of a distance less than 2.5 miles, and walking is used mostly for trips of less than 1.0 mile. Study participants did not make any bicycle trips over 15 miles. Because the Hoback Junction area is located approximately 12 miles from the Town of Jackson, there has not been a great demand to provide a large amount of bicycling amenities that connect the two areas.

Recommendations for the study area cited in *Pathways in Jackson Hole: A Conceptual Plan*, 1992; *Hoback Junction EIS Bicycle/Pedestrian Plan*, Draft, 2003; and *Recreation Project Plan, South Park River Access*, September 2004, include:

- A separated pathway from the south end of the Von Gontard Trail at Game Creek Road (approximately MP 146.75) to Hoback Junction. This would be a separated pathway within the existing highway easement

Existing Bicycle and Pedestrian Facilities

In general, the study area lacks bicycle and pedestrian amenities. An informal dirt path begins at the Hoback Junction Fire Station and terminates beneath the Snake River Bridge on the east side of the Snake River. There are a number of recreation trails found in the adjacent public lands and along the highway north of Hoback Junction, but none of these extend into the study area. The bridge over the Snake River has no sidewalk or space for bicyclists.

Area residents responding to travel surveys conducted in 1996 and 2001 placed a high priority on improving sidewalks and walkway systems. The *Teton County Report* revealed strong community interest in the proposed transportation improvements planned for roadways within the study area. Two primary issues relevant to pedestrian safety were to reduce the speed of through vehicles and to improve pedestrian facilities to safely connect existing and planned development within the Junction core area. In addition, the need for safe sidewalks and pedestrian crossings was identified as a way to increase pedestrian mobility.

Pedestrian counts were taken at Hoback Junction on July 9, 2003, for the three peak hours: 8:00 a.m. to 9:00 a.m., 12:00 p.m. to 1:00 p.m., and 4:30 p.m. to 5:30 p.m. A total of 10 pedestrian trips (one trip is equal to crossing the roadway one time in one direction) were made across U.S. 89/191 in the three-hour period. Three trips were made from 8:00 a.m. to 9:00 a.m., four trips were made from noon to 1:00 p.m., and three trips were made from 4:30 p.m. to 5:30 p.m.

3.8.5 Impacts

3.8.5.1 No-Action Alternative

The No-Action Alternative would not meet several goals outlined in the *Jackson/ Teton County Comprehensive Plan* (2002) (see Sections 3.1.4, Impacts). It would not meet Goal No. 1 in the plan's transportation element since it would not provide "for future mobility that meets the needs of residents and tourists within the context of community character." It also would not

meet Goal No. 3, which relates to improving the safety and efficiency of the transportation system, since it would not meet safety and efficiency needs outlined in Chapter 1.0 of this EA.

AASHTO guidelines call for Rural Principal Arterials on the National Highway System to be designed to at least LOS C. As discussed in Section 1.3.2, Accommodate Travel Demand, the intersection at Hoback Junction would operate at LOS F by 2026 under the No-Action Alternative.

Pedestrian and bicycle traffic would be required to cross the bridge over the Snake River in a similar fashion to that which presently exists. Similarly, circulation and safety issues associated with the Hoback Junction intersection would remain (see Section 1.3.1, Correct Bridge and Roadway Deficiencies).

Under the No-Action Alternative, the study area would continue to lack a safe, connecting network of bicycle and pedestrian facilities, a condition that is inconsistent with area plans.

3.8.5.2 Preferred Alternative

The Preferred Alternative would include accommodations for bicycles and pedestrians through Hoback Junction including a pathway and sidewalk. A sidewalk would be carried across the new bridge over the Snake River heading southwest and would end where the bridge terminates.

The Preferred Alternative is consistent with transportation planning goals and would improve safety, circulation, and LOS through Hoback Junction.

Traffic closures and maintenance during construction will be determined during the design phase. An option being considered would involve traffic using the existing bridge while one-half of the new bridge is constructed. Traffic would then switch to the new bridge, the existing bridge would be demolished, and the second half of the new bridge would be completed. Therefore, the alternative would require some traffic maintenance, with only one lane of traffic open during construction. Another option would allow the existing bridge to be used as a detour during construction, which would offer improved circulation and traffic flow during construction.

Design Options

Either the Do Minimum or the Combine Approaches and Encourage Circulation Option would improve connectivity and mobility within the Hoback Junction area and would support concept plans that were developed at the 2002 Hoback Junction charrette.

The Do Minimum Option would improve conditions for bicyclists and pedestrians in Hoback Junction by providing eight formalized vehicle access points where informal access currently exists. This would reduce areas of potential conflict between bicyclists/pedestrians and vehicles entering and exiting the highway.

Impacts under the Combine Approaches and Encourage Circulation Option at Hoback Junction would be the same as those under the Do Minimum Option, except that it would include six formal vehicle access points and landscaping on either side of the sidewalk. Compared to the Do Minimum Option, this option would be safer for bicyclists and pedestrians because of the reduced vehicle access points.

The roundabout design option would achieve greater reductions in speed than would a "T" intersection design. Therefore, the roundabout concept would more fully support the safety goals presented in the *Hoback Junction Charrette Report*. The roundabout is anticipated to operate at LOS A in 2026, compared to a LOS C for the "T" intersection.

The "T" Intersection Option would improve conditions for bicyclists and pedestrians in Hoback Junction by providing a crosswalk at the east leg of the intersection. The Roundabout Option would improve conditions for bicyclists and pedestrians in Hoback Junction by providing crosswalks at all legs of the intersection. This would create a safer condition for bicyclists and pedestrians compared to the "T" Intersection Option because only one lane of traffic would be crossed at a time.

3.8.6 Mitigation

The Preferred Alternative would improve transportation conditions in the study area, and no mitigation is necessary.

3.9 Air Quality

3.9.1 Ambient Air Quality Standards

The U.S. Environmental Protection Agency (EPA) has established national ambient air quality standards (NAAQS) for six criteria pollutants to protect the public from health hazards associated with air pollution. These criteria pollutants are carbon monoxide, lead, nitrogen dioxide (NO_2), ozone, particulate matter (PM_{10} and $PM_{2.5}$), and sulfur dioxide (SO_2). The NAAQS have been modified by the Wyoming Department of Environmental Quality-Air Quality Division (WDEQ-AQD) and are listed in **Table 3-8**. Transportation contributes to carbon monoxide, nitrogen dioxide, ozone, and particulate matter.

Table 3-8
Wyoming Ambient Air Quality Standards

Pollutant	Type	Averaging Time	Concentration
Carbon Monoxide	Primary	1-hour*	35 ppm
	Primary	8-hour*	9 ppm
Ozone	Primary /Secondary	8-hour**	0.08 ppm
Nitrogen Dioxide	Primary /Secondary	Annual arithmetic mean	0.053 ppm
Sulfur Dioxide	Primary	Annual arithmetic mean	0.02 ppm
	Primary	24-hour*	0.10ppm
	Secondary	3-hour*	0.5 ppm
Particulate (PM_{10})	Primary	Annual arithmetic mean (3-year average)	50 $\mu g/m^3$
	Primary	24-hour***	150 $\mu g/m^3$
Particulate ($PM_{2.5}$)	Primary	Annual arithmetic mean (3-year average)	15 $\mu g/m^3$
	Primary	24-hour (98^{th} percentile)	65 $\mu g/m^3$
Lead	Primary	Calendar quarter	1.5 $\mu g/m^3$

*This concentration is not to be exceeded more than once per year.

**The 8-hour Ozone standard is set at 0.08 ppm as the 3-year average of the annual 4^{th} maximum 8-hour average concentration.

***The 24-hour standard is attained when the expected number of exceedances for each calendar year, averaged over three years, is less than or equal to one.

The WDEQ-AQD monitors these criteria pollutants. If monitored levels of any of these pollutants violate the WAAQS, then the EPA, in cooperation with the State of Wyoming, will designate the contributing area as "non-attainment."

The study area is located within the Snake River and Hoback River valleys, which are currently listed by the EPA as in attainment for all criteria pollutants.

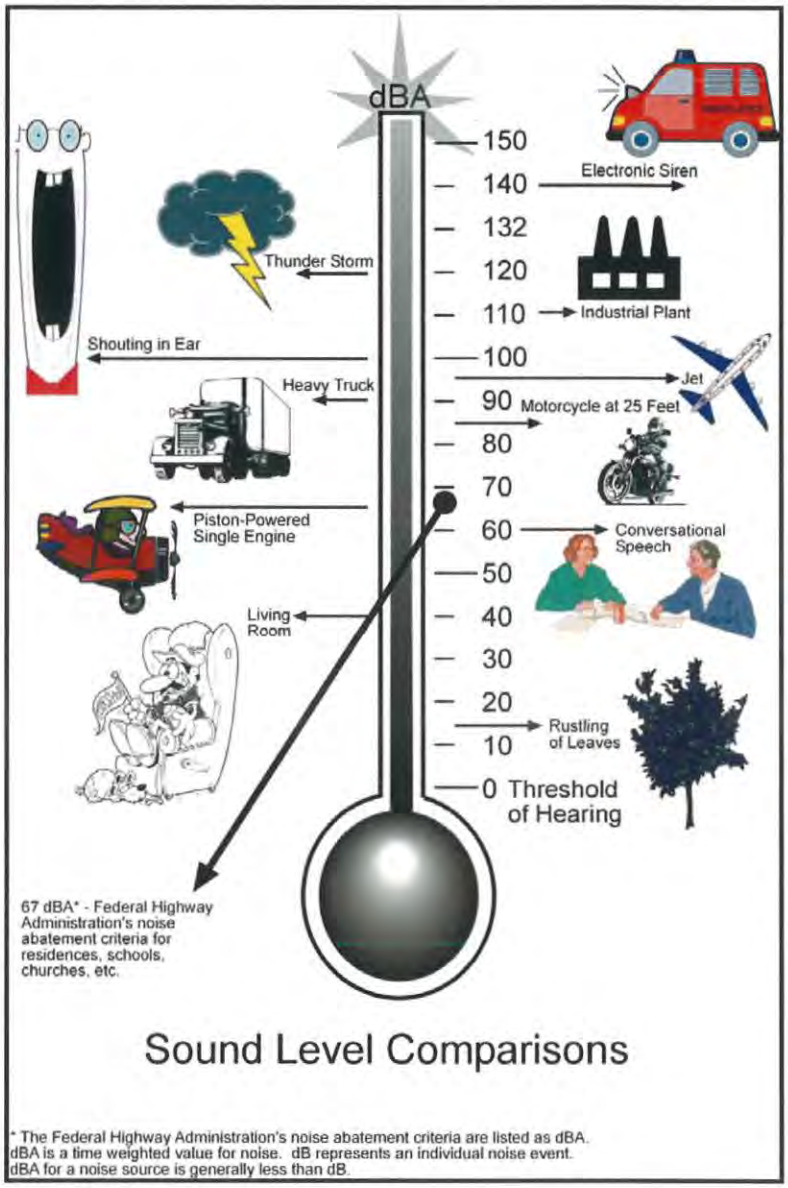
3.9.2 Impacts

The study area is in attainment and has no regional emissions budget modeled for future levels of ozone, carbon monoxide, $PM_{2.5}$, or PM_{10}. Although traffic volumes are expected to increase 85 percent over existing conditions, the Preferred Alternative would experience the same increase in traffic volumes as the No-Action Alternative. The Preferred Alternative would allow a higher level of service to be maintained on the primary route. The No-Action Alternative, in comparison, would experience less adequate levels of service, resulting in increased future emissions due to congestion and idling vehicles. The overall traffic levels are not expected to cause an exceedance of the air quality standards for the No-Action Alternative or the Preferred Alternative. A signalized intersection is not proposed for Hoback Junction.

3.10 Noise

Traffic noise can potentially impact the daily activities and quality of life for people living near streets and highways. Traffic noise levels depend on traffic volume, traffic speed, and the type of traffic. Vehicle noise is produced by the engine and exhaust system, but is primarily a result of the interaction of tires with pavement. Factors such as terrain, vegetation, and obstacles can also affect the level of traffic noise. Typically, traffic noise is less noticeable for people living 500 feet or more from heavily traveled freeways or more than 100 to 200 feet from lightly traveled roads.

Figure 3-6
Examples of Common Outdoor Noise and dB(A) Levels



Source: FHWA

All sound level measurements and estimates are reported as Leq(h) in units of decibels that are A-weighted (dBA). The Leq or equivalent steady state sound level describes the receiver's average noise exposure from all events recorded over a given period of time. In the case of traffic noise, this period is one hour, designated Leq(h). The A-weighting filters sound to reduce the strength of very low and very high frequency noise to better resemble how the human ear would hear. On average, a noise increase of 10 dBA corresponds to a doubling of the loudness. Some noise levels that commonly occur in the environment are shown in **Figure 3-6**.

3.10.1 Noise Abatement Criteria

The noise analysis was conducted according to the WYDOT noise guidelines, which are set forth in the document entitled *Wyoming Noise Analysis and Abatement Guidelines*, June 1996. The

WYDOT noise guidelines are consistent with those of the Federal Highway Administration (FHWA) (23 CFR 772).

WYDOT has adopted noise abatement criteria (NAC) that are used to determine noise impacts from traffic sources on certain land uses. These are shown in **Table 3-9.**

Table 3-9
WYDOT Noise Abatement Criteria (NAC)

Category	Leq(h)* dB(A)	Description of Activity Category
A	56 Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	66 Exterior	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	71 Exterior	Developed lands, properties, or activities not included in Categories A or B above.
D	--	Undeveloped lands.
E	51 Interior	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: Federal Highway Administration's (FHWA) Procedures for Abatement of Highway Traffic Noise and Construction Noise (23 CFR Part 772); *Wyoming Noise Analysis and Abatement Guidelines*, June 1996.
*L_{eq}(h) describes the hourly value of L_{eq}. L_{eq} is the mean noise level during the peak traffic period.

The above criteria are typically applied to outdoor areas of use, which are usually described as first-floor outdoor patio/deck areas for residences. If a project would result in noise levels above these thresholds, noise mitigation would need to be considered as a part of the proposed action. A noise impact is considered to be substantial if the project would result in a noise increase of 15 dB(A) or greater above existing noise levels. Noise mitigation would then be considered as a part of the proposed action.

3.10.2 Existing Noise

Noise measurements were conducted at two locations in the Hoback Junction study area, labeled M1 and M2 on **Figure 3-7**. The Traffic Noise Model (TNM) v2.5 noise model was validated by comparing predicted and measured noise levels. Noise levels were predicted at each measurement location using existing and projected traffic volumes, speeds, and vehicle mix monitored during the noise measurements. The averaged measured and predicted noise levels were then compared. The measured and predicted levels are within the desired accuracy of ±3 dBA. The 3.3-decibel difference between averaged measured and predicted noise levels is considered acceptable. The TNM model under-predicted noise levels by 4.7 decibels in the area of the General Store in Hoback Junction at site M1.

Noise levels were predicted for existing (1999) conditions at each of the Category B and C receiver locations in the study area using TNM v2.5 (see **Figure 3-7**). Please refer to the *Hoback Junction Noise Technical Report, 2006* (Carter & Burgess, 2006). Predicted levels at the two

monitoring sites are included in **Table 3-10**. The existing noise levels range from 40 to 69 dBA, and exceed WYDOT's Category B residential Noise Abatement Criterion of 66 dBA at receiver #258.

Figure 3-7
Noise Receivers and Monitoring Sites

Source: Carter & Burgess, Inc.

Table 3-10
Noise Monitoring Results

Monitor Site	Location	Measured AM dBA	Measured PM dBA	Modeled dBA	Difference
M1	House north of General Store in Hoback Junction	62.5	64.5	58.8	4.7
M2	Hoback River Resort - south side of Hoback Junction	56.8	55.4	59.4	-3.3

Source: Carter & Burgess, Inc.

3.10.3 Impacts

Evaluation of noise levels for all sensitive receivers along the study area used 2026 projected traffic volumes. Future noise levels are predicted to increase an average 3.6 to 4.0 decibels over existing noise levels, primarily due to the effect of almost doubled future traffic volumes. **Figure 3-7** shows the location and identification number of all noise-sensitive receivers and noise monitoring sites used in the noise modeling process. **Table 3-10** shows the results of the noise monitoring. Comprehensive noise level results are tabulated in the *Hoback Junction Noise Technical Report, 2006.*

3.10.3.1 No-Action Alternative

There would be no substantial increases of 15 or more decibels above existing noise levels.

3.10.3.2 Preferred Alternative

Under the Preferred Alternative, 2 of the 49 noise receivers would experience noise levels exceeding the NAC shown in **Table 3-9**. Receivers #257 and #258 would experience noise levels in 2026 of 66 dBA and 69.6 dBA, respectively. Noise analyses results are shown in **Table 3-11.**

3.10.4 Mitigation

Wherever the Wyoming NAC or increase criterion are met or exceeded, WYDOT guidelines require that a mitigation analysis be conducted and that the noise abatement measures must be reasonable and feasible. This analysis first determines if proposed mitigation meets these "feasibility" considerations: engineering constructability, access and line-of-sight safety, maintenance requirements, icing and snow drifting, presence of other noise sources, and the ability of the noise mitigation to achieve at least 7 dBA noise reduction.

For mitigation measures that are considered feasible, the analysis considers the following "reasonableness" criteria:

- Amount of noise reduction of at least 7 dBA.
- Number of benefited receivers.

- Cost of abatement should be $15,000/residence or less.
- Residents' desire for noise barrier.
- Overall design-year noise levels where greater consideration is given to impacts over 70 dBA or over 20 dBA increases over existing.
- Longevity of residence at that location relative to highway.

Table 3-11
Noise Analyses Results

Receptor	NAC	Existing (dBA)	No-Action (dBA)	Build (dBA)
229	R	61.7	62.3	64.7
230	R(3)	60.4	61.5	63.9
231	R	55.7	55.8	55.8
232	R	54.5	54.8	55.1
233	R	53.5	53.9	54.4
234	R	55.4	55.7	56.5
235	R	55.3	55.7	56.6
236	R	57.8	58.1	58.0
237	R	57.0	58.0	57.9
238	C	58.8	59.8	59.7
239	R	57.2	58.1	58.5
240	C	56.9	58.0	59.4
241	R	55.8	56.7	58.1
242	R	53.2	53.9	55.5
243	R	52.3	52.9	53.9
244	R	52.2	52.7	54.0
245	R	52.2	52.7	53.9
246	R	55.8	55.9	56.8
247	R	56.6	56.9	58.1
248	R	58.2	58.5	61.1
249	R	58.1	58.3	60.5
250	R	55.6	55.6	56.0
251	R	57.3	57.5	59.1
252	R	57.4	57.5	58.4
253	R	57.4	57.5	58.0
254	R	57.3	57.4	57.8
255	R	55.6	55.7	56.0
256	R	56.3	56.3	56.5
257	R	63.9	64.0	66.0
258	R	69.0	69.0	69.6
259	R	59.7	59.7	59.5
260	R	57.2	57.2	56.8
261	R	56.2	56.2	56.1
262	R	57.0	57.0	57.0
263	R	58.4	58.5	60.7

continued

Table 3-11 (cont'd.)
Noise Analyses Results

Receptor	NAC	Existing (dBA)	No-Action (dBA)	Build (dBA)
264	R	55.3	55.5	56.6
265	R	54.0	54.2	55.1
266	R	54.9	55.2	56.6
267	R	50.7	50.8	51.0
268	R	46.9	47.1	47.9
269	R	45.5	45.7	46.2
270	R	50.0	50.1	51.0
271	R	49.4	49.6	50.4
272	R	42.7	43.0	43.3
273	R	41.9	42.3	42.8
274	R	40.6	40.9	41.3
275	R	39.9	40.3	40.3
276	R	39.7	40.2	40.1
277	R	39.5	40.0	39.6

Source: Carter & Burgess, Inc.

Noise barriers, either in the form of walls or earthen berms, are the most commonly employed highway noise mitigation measure. Noise walls are more common than berms because they require less space. Berms require approximately 6 feet of width for every 1 foot of height. Noise barriers typically achieve between 5 and 15 dBA of noise reduction, depending on height, topography (less reduction is achievable for receptors located above the highway), and proximity (barriers are most effective for receptors located within approximately 300 feet of the barrier).

Mitigation Barrier 1. A noise wall was evaluated for the Hoback River Resort (Receivers 257 through 265). The first row of receivers could achieve a 7 dBA noise reduction with a wall of 8 to 10 feet high and 300 feet long. The cost per receiver, including benefited receivers, is $23,600 per receiver, which is 57 percent above the reasonable cost criterion. Therefore, this wall would not be a reasonable mitigation measure.

Remaining impacted receivers either are individual residences or are groups of widely spaced residences. Noise mitigation barriers that could provide the required noise reduction of 7 dBA would be cost-prohibitive, and, therefore, are not a reasonable mitigation measure.

3.11 Water Resources

3.11.1 Affected Environment

The study area lies within the Grey-Hoback Watershed hydrologic unit code (HUC) 17040103 of the Wyoming Snake River Basin. The Snake River crosses into Idaho and joins with the Columbia River. The Snake River and its major tributary, the Hoback River, drain the study area.

The study area parallels the Snake River from approximately MP 141.4 to the project terminus at MP 140.7 southwest of Hoback Junction. A bridge over the Snake River is located at approximately MP 141.

The Snake and Hoback Rivers within the study area are eligible under the recreational category for designation as Wild and Scenic Rivers (see Section 3.1.3.1, Land Use Planning). Also, this portion of the Snake River is used for commercial and private raft and boat trips (see Section 3.7, Parks and Recreation Resources).

Data derived through the Teton County Levee Department documented approximately 24.5 miles of levees along the Snake River within the Snake River and Gros Ventre Levee System. The U.S. Army Corps Engineers (USACE) built and maintains these levees with assistance from Teton County. There are some private levees that were built and are maintained by private landowners. The USACE comes to Jackson Hole in July of each year to inspect the levees and determine rehabilitation needs based on the amount of riprap lost due to spring runoff. These levee systems are located outside of the study area.

In the Hoback Junction area, depth to groundwater is approximately 120 to 130 feet.

3.11.2 Impacts

3.11.2.1 No-Action Alternative

The No-Action Alternative would result in no new direct impacts to water resources identified in Section 3.11.1, Affected Environment. Indirect impacts could result over time, as traffic and roadway related pollutants increase. The No-Action Alternative would provide no improvements, protection measures, or Best Management Practices (BMPs) to reduce direct or indirect water resource impacts.

3.11.2.2 Preferred Alternative

Effects associated with the Preferred Alternative on water resources may include sedimentation, loss of riparian habitat, channel modifications, and chemical contamination. These effects vary depending on factors such as proximity and use of the highway, type of stream affected, and surrounding topography and vegetation. These effects are discussed in more detail in other sections of this chapter: Section 3.12, Water Quality; Section 3.13, Wetlands; Section 3.14, Floodplains; Section 3.15, Wild and Scenic Rivers; and Section 3.17, Fisheries.

Impacts to water resources associated with the Preferred Alternative would result from the replacement of the Snake River Bridge. Bridge construction may result in short-term increases of sediment levels into the river during the construction phase. Bridge construction that includes in-stream work would generate additional sediment by stirring up the river bottom and re-suspending existing sediment in the water column. If bridge piers are placed within the stream bed, construction of the piers would disturb sediment in the river/stream channel. Sediment introduced to the stream or existing sediment disturbed during construction would

be washed further downstream by the volume and velocity of water being transported and during periods of high flows (spring runoff) when sediment loads in the river are typically high.

Replacement of the bridge has the potential to modify the river channel through adjustments of the river bank, installation of riprap to prevent erosion, and changes in bridge pier shape and/or placement.

Work within the channel may be required, including excavation, pile driving and/or bank stabilization. Foundations (abutments and piers) would be placed parallel with the direction of the stream flow at flood stage. When practical, intermediate supports, or piers, would be placed on the stream banks outside of or above the ordinary high water mark, rather than in the main channel. This would lessen the undesirable impacts to the stream bed, and thus limit the potential for detrimental water quality issues. However, due to the topography and nature of the channel, pier locations may be placed within the limits of the ordinary high water mark. Retaining walls will be used to minimize impacts to the river. Long-term indirect impacts are not expected to occur as a result of structure replacement or rehabilitation.

3.11.3 Mitigation

WYDOT has attempted to avoid and minimize impacts to water resources during the preliminary design stage. WYDOT would continue to seek opportunities to avoid and minimize impacts to water resources during final design. Also, the final design would incorporate BMPs to mitigate unavoidable adverse effects to water resources (see Section 3.22.2, Mitigation).

3.12 Water Quality

3.12.1 Affected Environment

To fulfill Section 303(d) of the federal Clean Water Act, the Wyoming Department of Environmental Quality (DEQ) prepares a 303(d) List of Waters Requiring Total Maximum Daily Loads (TMDLs). These are waters for which technology-based effluent limitations and other required controls are not stringent enough to attain water quality standards. 303(d) waters are classified as Waterbodies with Water Quality Impairments, Waterbodies with National Pollutant Discharge Elimination System (NPDES) Discharge Permits Containing Waste Load Allocation Expiring, and Waterbodies with Water Quality Threats.

Downstream of the study area, the Snake River has been included on the 303(d) list of impaired waters for temperature and total dissolved gas by either Idaho, Oregon, or Washington, as appropriate. All public water systems of the study area are in compliance with state and federal regulations.

3.12.1.1 Use Designations

Under Section 305(b) of the Clean Water Act, the Wyoming DEQ classifies surface water quality based on categories related to their use. These categories are:

- Class 1, Outstanding Waters
- Class 2, Fisheries and Drinking Water
- Class 3, Aquatic Life Other than Fish
- Class 4, Agriculture, Industry, Recreation, and Wildlife.

No Class 1, Class 3, or Class 4 waters are located within the study area.

The Snake River, Hoback River, and Fall Creek are rated Class 2AB. Class 2AB waters are known to support game fish populations or spawning and nursery areas at least seasonally. All use designations are supported (drinking water, game fish, nongame fish, fish consumption, other aquatic life, recreation, wildlife, agriculture, industry, and scenic).

3.12.1.2 Sources of Pollution

Most pollutants entering the study area's waterways are from nonpoint sources. Nonpoint source pollution is dispersed and not easily traced to definable locations, as opposed to pollution from point sources, such as industrial discharges or sanitary sewer outfalls. Pollutants potentially affecting water quality in the study area may include fertilizers, sediments, pesticides, herbicides, and highway runoff. The Hoback River receives heavy sediment loadings as a result of naturally occurring geologic processes that may be accelerated by human activity.

3.12.2 Impacts

3.12.2.1 No-Action Alternative

The No-Action Alternative would result in no new impacts to water quality. Indirect impacts could result over time, as traffic and roadway-related pollutants increase. The No-Action Alternative would provide no improvements, protection measures, or BMPs to improve water quality. Incremental increases in traffic volumes and congestion would result in associated increases in nonpoint source pollutant loadings entering water bodies from highway runoff.

3.12.2.2 Preferred Alternative

The Preferred Alternative would increase the amount of impervious surface from approximately 2.9 acres under existing conditions to an estimated 5.9 acres. The proximity of the Snake River increases the potential for alternative and bridge construction to adversely affect water quality.

Impervious surfaces do not allow for filtration of rainfall, resulting in rainfall running off these surfaces as storm water. Without mitigation, runoff from the highway would increase following construction of the Preferred Alternative. The amount of runoff from the highway reaching the streams or rivers is subject to the effectiveness of BMPs, the amount and intensity of rain events, the proximity of water bodies, topography, and vegetative features.

Stormwater runoff from highways and associated rights-of-way typically contains a specific suite of pollutants that can occur in widely varying concentrations. Pollutants of concern

associated with highway construction and use include a variety of substances from common organic materials to toxic metals. Some pollutants, such as herbicides, road salts, and fertilizers, are intentionally placed in the environment to promote safety or roadside vegetation. Other pollutants, such as the incidental release of small amounts of petroleum products and metals from trucks and cars, are the indirect effect of roadway use. A major factor that determines concentrations of pollutants in highway stormwater runoff is the volume of traffic carried by a particular segment of roadway.

Most stormwater pollutant loading attributed to a particular construction activity, along with the proximity of that activity to water bodies, can factor into water quality. Primary factors that would influence the effect of highway runoff pollutant loading within any particular surface water body include the type and size of the receiving water body, the potential for dispersion, the size of the catchment area, the biological diversity of the receiving water body, and relative effectiveness of proposed mitigation measures.

The Preferred Alternative would also result in the introduction of certain pollutants normally associated with vehicular traffic (a function of vehicle miles traveled or VMT). With respect to highway projects, stormwater pollution loading is the quantity of pollutants that are transported off the road surface before they reach vegetated ditches or other BMPs. If not addressed through appropriate stormwater management, the combination of these factors could contribute to degradation of water quality through increases in nonpoint pollutant loading.

Since the Preferred Alternative would result in an additional highway lane, the use and volume of sand/gravel/deicing salts during the winter months would increase. Sand/gravel/deicing salts applied to the highway have the potential to be deposited into the river via runoff or side-casting from the road. The use of these materials on the highway is dependent on weather and is expected to be variable over time. After successful reclamation of the highway right-of-way has occurred, the migration of off-stream sediment, such as sand/gravel/deicing salts, to the river would be slowed; however, the overall long-term effect would be an increase in sediment in the river. Sediment that enters the river over the winter months would be moved further downstream during the spring runoff when the volume of sediment in the river is high.

With respect to short-term effects, clearing and grubbing, earth moving and grading, and other construction-related activities can lead to erosion of soils. As discussed in Section 3.11.2, Impacts, widening of the bridge could require in-stream construction, and short-term water quality impacts would depend on the degree of this construction. Section 3.22, Construction, discusses potential construction effects on water quality.

With implementation of appropriate mitigation measures and BMPs (discussed in Section 3.12.3, Mitigation), operation of the Preferred Alternative would not result in measurable degradation of water quality or affect surface water use designations discussed in Section 3.12.1.1, Use Designations.

3.12.3 Mitigation

WYDOT has attempted to avoid and minimize water quality impacts during the preliminary design stage. If a Preferred Alternative is selected, WYDOT would continue to seek opportunities to avoid and minimize impacts to water resources during final design.

As part of construction of a Preferred Alternative, WYDOT would require preparation and implementation of a Storm Water Management Plan (SWMP). This plan would describe and list the BMPs necessary to improve storm water quality while meeting the following goals:

- Control and minimize erosion and sedimentation during and after the construction phase of a project.
- Minimize the potential for contaminants entering storm water and receiving waters during construction activities.
- Reduce pollutants in post-construction storm water runoff (storm water quality management).
- Implementation of permanent erosion control and storm water measures to address cut and fill slope erosion and highway runoff.
- Continuation of maintenance BMPs.
- Development of a spill prevention and emergency response plan for use during construction concerning the storage, handling, and use of chemicals and other such products.

SWMPs are developed during the design phase of a project and implemented during construction. The temporary erosion control and storm water management measures are included in the SWMP for use during construction and removed either by the contractor or WYDOT maintenance. In addition to SWMP requirements, WYDOT and its contractors would adhere to criteria set in WYDOT's *Standard Specifications for Road and Bridge Construction*, 2003 (see Section 3.22.2, Mitigation).

WYDOT would incorporate the following BMPs into a Stormwater Pollution Prevention Plan to minimize runoff to the Snake River and its tributaries during bridge and highway construction. Other state-of-the art erosion and sediment control BMPs would also be considered.

- Limit land disturbance and preserve existing vegetation
- Vegetative stabilization through seeding and mulching
- Erosion bales
- Compost berms and silt fence
- Rock berms, channels, diversions, and check dams
- Inlet and outlet protection
- Slope drains
- Erosion control blankets

- Ditch checks and linings
- Sediment traps
- Berms and diversions
- Bituminous and burlap bag curbs

3.13 Waters of the U.S., Including Wetlands

3.13.1 Affected Environment

Waters of the U.S. are described generically in EPA's 404(b) guidelines as rivers, streams, ponds, and special aquatic sites (e.g., wetlands). Within the study area, waters of the U.S. include waterways (e.g., streams, rivers) and wetlands. This section describes the waters of the U.S. that occur in the study area. For purposes of the wetland evaluation, the study area is defined as a corridor 600 feet wide, 300 feet on either side of the centerline of the existing highway. The functions and values of wetlands are also described.

Wetlands are defined by the USACE and the EPA as "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstance do support, a prevalence of vegetation typically adapted for life in saturated soils conditions." Waters of the U.S., including wetlands, are protected and regulated under the Clean Water Act (CWA). Jurisdictional wetlands, i.e., wetlands regulated under the CWA, are waters of the U.S. that meet the following criteria:

- **Hydrophytic vegetation:** Plant life that occurs in areas where there are saturated soils of sufficient duration to exert an influence on the character of the plant species present.
- **Hydric soils**: Soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation.
- **Wetland hydrology**: Permanent or periodic inundation at water depths of 6.6 feet or saturated soils to the surface at some time during the growing season.

3.13.1.1 Wetland Occurrence in the Study Area

Wetlands in the study area were delineated in accordance with the USACE's 1987 *Wetland Delineation Manual*. Wetlands were mapped on black and white aerial photography and the boundaries of each wetland were recorded with a Global Positioning System unit. Waters of the U.S., which include the Hoback River, Snake River and Fall Creek, were also delineated on USGS quad maps of the study area.

Three wetlands were delineated in the study area (see **Figure 3-8**). The location and description of each is provided in the *Preliminary Wetlands and Other Surface Waters Report* (WEST, Inc., 2005). Total acreage of the three wetlands in the study area is 0.45 acre.

Figure 3-8
Location of Wetlands in the Study Area

Source: WEST, Inc.

Shrub Swamp Wetlands

Based on the WYDOT wetland classification system, the three wetlands are Shrub Swamp type wetlands, which are scrub-shrub wetlands within nontidal water regimes except those that are permanently flooded. The wetlands are considered riverine because of their association with the Snake River. Riverine systems include all wetlands and deepwater habitats within a water channel.

The wetland hydrology is related either to seasonal flooding or high groundwater, and the soils are sandy. The shrub swamp wetlands are dominated by sandbar willow (*Salix exigua*) in the overstory with an understory of mix of grasses and forbs, although much of the willow-dominated area is very dense and has little understory vegetation.

Wetland Functions and Values

The functions and values associated with each wetland were quantified using the Montana Department of Transportation (MDT) Montana Wetland Assessment Method (Berglund 1999). The purpose of this assessment was to determine the functions and values of the wetlands, as well as to develop wetland mitigation that will replace both the wetland acreage and the functions and values.

The following functions and values were evaluated using the MDT method:

- Habitat for federally listed or proposed threatened or endangered plants and animals
- Habitat for U.S. Forest Service sensitive species
- General wildlife habitat
- General fish/aquatic habitat
- Flood attenuation
- Short- and long-term surface water storage
- Sediment/nutrient/toxicant retention and removal
- Sediment/shoreline stabilization
- Production export/food chain support
- Groundwater discharge/recharge
- Uniqueness
- Recreation/education potential

The assessment considers all 12 functions and values (when applicable), which are rated as "low," "moderate," or "high," and scored on a scale of 0.1 (lowest) to 1 (highest) "functional points." Functional points are summed and expressed as a percentage of the possible total. This percentage is then used in conjunction with other criteria to provide an overall wetland ranking from Category I through IV.

- Category I wetlands are of exceptionally high quality and are generally rare to uncommon in the state or are important from a regulatory standpoint.

- Category II wetlands are more common than Category I wetlands and are those that provide habitat for sensitive plants or animals, function at very high levels for wildlife/fish habitat, are unique in a given region, or are assigned very high ratings for other functions or values.

- Category III wetlands are typically quite common, and less diverse, smaller, and more isolated than wetlands in a higher rated category (i.e., I or II). They can provide many functions and values, but are not primary habitat for federally listed threatened or

endangered species, are not unique or rare, or are not assigned a high rating for the other functions and values assessed.

- Category IV wetlands are generally small, isolated, and lack vegetative diversity. These sites provide little in the way of wildlife habitat and are often directly or indirectly disturbed. To quantify the functions and values of project wetlands, the score for each of the 12 variables was multiplied by the size of the wetland (acres), and these scores were summed to come up with the number of wetland functional units associated with study area wetlands.

The Shrub Swamp wetlands in the study area were rated as Category I wetlands primarily due to high values for listed and sensitive species (i.e., bald eagle and Snake River fine spotted cutthroat trout), general fish/aquatic habitat, flood attenuation, shoreline stabilization, long- and short-term surface water storage, and recreational potential. Based on results of the functional assessment, there are a total of 4.54 wetland functional units associated with the three wetlands in the study area.

3.13.1.2 Other Waters of the U.S.

In addition to wetlands, waters of the U.S. located in the study area include the Snake River, Hoback River and Fall Creek (see **Figure 3-8**).

3.13.2 Impacts

The area of wetland impact was determined by measuring the area of wetland within proposed encroachment areas. Impacts to waters of the U.S. were expressed as the length of each drainage encroached upon.

3.13.2.1 No-Action Alternative

The No-Action Alternative would result in no new impacts to wetlands or waters of the U.S.

3.13.2.2 Preferred Alternative

The Preferred Alternative would impact one wetland (Wetland #1) which is a Shrub Swamp Category I wetland adjacent to the Snake River, and north of the bridge. Construction activities associated with the Preferred Alternative would result in an impact to the entire 0.32 acres comprising Wetland #1 and resulting in a loss of 3.20 wetland functional units (**Table 3-12**). The Preferred Alternative also would impact an estimated 52 linear feet of the Snake River, considered a water of the U.S.

Table 3-12
Description and Functional Value of Wetland Impacts

Wetland #	Wetland Type	Wetland Category	Functional Score [a]	Area Impacted (acre) [b]	Functional Units Lost [a x b]
1	Shrub Swamp	I	10.1	0.32	3.20

3.13.3 Mitigation

Total wetland impacts would be 0.32 acre with a total of 3.20 wetland functional units lost. A permit from the USACE will be required for all wetland and waters of the U.S. impacts.

Wetland mitigation will be required and the mitigation would be designed such that the total functional units lost as a result of the construction project would be replaced at a minimum ratio of 1:1.

3.14 Floodplains

3.14.1 Affected Environment

Floodplains provide many functions and benefits, including flood retention and storage, habitat, and filtering of pollutants from stormwater runoff. Executive Order 11988 requires federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains, and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. In accomplishing this objective, "each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities." Federal agencies consult with the Federal Emergency Management Agency (FEMA) concerning implementation of this Executive Order. 23 CFR 650 Subpart A contains FHWA's floodplain regulations.

One hundred-year floodplains are defined as those areas having a one percent chance of flooding any given year. Information for the 100-year floodplain associated with the Snake River was obtained from FEMA Flood Insurance Rate Maps (FIRM) and FEMA Flood Insurance Study Reports prepared in May 1989. The FEMA maps indicate that the Snake River has an associated floodplain hazard area, but no regulatory floodway. **Figure 3-9** shows where the existing Snake River bridge crosses the 100-year floodplain at MP 141.08. The floodplain is approximately 300 feet wide at that location.

The Teton County Floodplain Management Resolution (2005) requires maintenance of flood-carrying capacity within any altered or relocated portion of a watercourse. Teton County's land development regulations allow for development of essential facilities within a floodplain provided that the project complies with the Floodplain Management Resolution, wildlife

impacts are minimized, and fill standards are met. Teton County has a zero rise in base flood plain elevation as a stipulation in their administration of the National Flood Insurance Program. The FHWA regulations require coordination with local governments regarding project consistency with local floodplain ordinances.

Figure 3-9
100-Year Floodplain

Source: FEMA

3.14.2 Impacts

FEMA mapping at the Snake River bridge designate the floodplain as Zone A. This designation is not supported by detailed hydrologic and hydraulic analysis, and therefore can be inaccurate. Project mapping prepared by WYDOT provides more accurate contour data, and therefore was used at various locations to compute the water surface elevations and more accurately map floodplain boundaries.

3.14.2.1 No-Action Alternative

The No-Action Alternative would result in no new impacts to the Snake River 100-year floodplain, and would not affect the floodplain's natural and beneficial values.

3.14.2.2 Preferred Alternative

The Preferred Alternative would replace the bridge over the Snake River. Although a structure selection and detailed structural design has not been initiated, WYDOT would attempt to place the intermediate supports, or piers, on the stream banks rather than in the main channel. However, due to the topography, and the nature of the channel, pier locations may be placed within the limits of the ordinary high water. Piers would be placed within the 100-year floodplain.

The new bridge constructed as part of the Preferred Alternative would be above the 100-year floodplain elevation and would remain operational during a 100-year flood. WYDOT would design the bridge to result in no net increase in water surface elevation or decrease in conveyance. Therefore, the Preferred Alternative would not appreciably change or modify floodplain hydraulics or increase flooding risks. Any encroachment on the floodplain would not support incompatible development in the floodplain. In sum, the Preferred Alternative would not result in a significant floodplain encroachment as defined by 23 CFR 650.105(q).

3.14.3 Mitigation

During the design stage, WYDOT will coordinate with the Teton County Floodplain Administrator to ensure compliance with local regulations and that appropriate mitigation measures are included in the construction plans. Designs and recommendations will comply with 23 CFR 650 A and Executive Order 11988.

WYDOT will attempt to minimize impacts to the 100-year floodplain. Specific impact avoidance, minimization, and mitigation measures will be determined during final design. Impacts to floodplains will be minimized by following standard stream crossing design criteria, avoiding direct encroachments on the river channel where possible, and adjusting the stream crossing alignment where possible.

3.15 Wild and Scenic Rivers

3.15.1 Affected Environment

The Wild and Scenic Rivers (WSR) Act, enacted in 1968, protects rivers across the nation that are free-flowing and possess outstandingly remarkable values (ORVs), such as scenic, recreational, geologic, fish and wildlife, historic, cultural, or similar values. The Act states that the rivers "shall be preserved in free-flowing condition and their immediate environments shall be protected." Within the study area, the U.S. Forest Service (USFS) manages the Snake and Hoback Rivers as potentially eligible for WSR designation under the *Bridger-Teton National Forest Plan.*

If designated, a river is classified and administered as a Wild River Area, Scenic River Area, Recreational River Area, or a combination thereof.

Wild River Areas are those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted.

Scenic River Areas are those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

Recreational River Areas are those rivers or sections of rivers readily accessible by road or railroad, and may have some development along the shoreline or may have undergone some diversion or impoundment in the past.

To be considered eligible, a river must be free-flowing and have at least one ORV. An officially eligible river is one that has been specifically authorized as a *Study River* by the U.S. Congress. Congress authorizes and funds a study to determine whether a river is eligible or suitable for study and, eventually, for designation as a WSR. *Study Rivers* are exceedingly well-protected.

Other ways in which a river can be considered potentially eligible for WSR designation are through listing on the Nationwide Rivers Inventory (NRI) list or by recommendation by a federal agency. Although eligibility of a river under these circumstances does not make the river a *Study River*, it promotes protection of river values and characteristics until an evaluation process and possible designation is completed. Eligible river segments on federal lands are managed at the discretion of the administering agency to protect free-flow and ORVs.

A Presidential Directive by Carter in 1979 stated that each federal agency, as part of its normal planning and environmental review process, must "take care to avoid or mitigate adverse effects on rivers identified in the Nationwide Rivers Inventory." Further, all agencies are required to coordinate with the National Park Service prior to taking actions that could impact the status of the rivers on the NRI. However, the Directive does not prohibit an agency from taking, supporting, or allowing an action which could adversely affect the wild and scenic values of a river in the NRI.

Segments of both the Hoback and the Snake Rivers within the study area are listed on the NRI. The Hoback Rivers segment is listed as a Recreational River Area with scenic, recreational, wildlife, and geologic ORVs; this segment of the Snake River is listed as a Recreational River Area with scenic, recreational, and wildlife ORVs.

The rivers are also considered potentially eligible by the USFS under the *Bridger-Teton National Forest Plan*. Under this plan, the standard for managing an eligible Recreation River is to meet a visual quality objective of *retention* within the river corridor (0.25 mile on either side of the river). *Retention* means that any new man-made alterations to the natural landscape would not be noticed by the average viewer.

Forest lands along the Hoback River are designated by the *Bridger-Teton National Forest Plan* as Desired Future Condition 3, River Recreation. This designation prescribes that the management for "river segments that have been determined eligible for potential addition to the national Wild and Scenic River system are protected from activities that could diminish or change the free-flowing characteristic, water quality, or the scenic, recreational fish and wildlife." Under the *Bridger-Teton National Forest Plan*, the USFS is charged with managing potentially eligible Wild and Scenic Rivers to protect outstandingly remarkable values for which they were found eligible.

3.15.2 Impacts

A presidential directive requires that each federal agency, as part of its normal planning and environmental review process, must take care to avoid or mitigate adverse effects on rivers identified as Wild and Scenic Rivers in the NRI. Furthermore, all agencies are required to coordinate with the National Park Service prior to taking actions that could impact the status of the rivers on the NRI.

3.15.2.1 Methods

To assist in preparing this EA, the USFS assessed the alternatives' potential effects to the eligibility of the Snake and Hoback Rivers for Wild and Scenic designation. The analysis group was comprised of USFS resource specialists relating to each ORV and included a Wyoming Game & Fish Department Fisheries Biologist, a National Park Service Rivers-Trails-Conservation-Assistance specialist, and a WYDOT environmental specialist.

The analysis group reviewed potential effects from the alternatives to each ORV and the rivers' free-flowing character. The project area was identified, followed by several photographs of existing conditions.

3.15.2.2 Preferred Alternative

The only ORV the Preferred Alternative could potentially affect would be the Scenic Quality ORV. Landslide mitigation and a wider typical section for the bridge to accommodate 3 lanes would require soil stabilization and retaining walls at the bridge over the Snake River. These walls would be somewhat visible but not intrusive on the foreground river environment, likely requiring no amendment to the Forest Plan. Those structures visible from the highway could be designed to be visually acceptable with proper selection of color and material type and texture, treatment of fill associated with piers and abutments, revegetation measures, etc. The bridge at Hoback Junction is within a developed area, and the retaining walls would be in character with the urban feel of the area.

There is no change from existing conditions with in-kind bridge replacement on either recreation or wildlife ORVs.

When practical, piers will be placed on the river banks outside of the ordinary high water mark, rather than in the main river channel. This placement provides for a more effective flow of water beneath the bridge, minimizes the temporary construction impacts to the river, simplifies construction, and enhances recreational opportunities such as boating, canoeing, kayaking, rafting, fishing and scenic float trips.

Based upon the above analysis of impacts for the Preferred Alternative, it has been determined that the Preferred Alternative would not adversely affect the wild and scenic values of the Snake River and would not effect it's eventual designation as a Wild and Scenic River – Recreational River Area.

3.15.3 Mitigation

WYDOT would mitigate potential effects to the Scenic Quality ORV from the retaining walls to the extent practicable by minimizing the size of retaining walls. Revegetation of the disturbed area around the walls would also help to mitigate visual impacts. Retaining walls would be designed such that they blend into the environment. This would be accomplished by using colored and textured surfaces and transitioning the end slopes into the adjacent landforms. WYDOT has committed to coordinate the aesthetic treatment of the retaining walls with the design advisory group during the final design phase.

3.16 Roadless Areas

3.16.1 Affected Environment

Roadless Area management became the focus of national attention in 1972 when the USFS initiated a Roadless Area Review and Evaluation (RARE I) of National Forest Service roadless areas greater than 5,000 acres to determine their suitability for inclusion in the National Wilderness Preservation System. Since that time, federal direction for the management of roadless areas has been continually evolving. The USFS is currently operating under an Interim Directive (Interim Directive No. 1920-2004-1) issued by the Chief of the USFS on July 16, 2004.

Inventoried roadless areas are areas identified in a set of inventoried roadless area maps, contained in the *Forest Service Roadless Area Conservation, Final Environmental Impact Statement,* Volume 2, dated November 2000, and any subsequent update or revision of those maps through the land management planning process.

The following three roadless areas are located near the study area (see **Figure 3-10**).

- The **Munger Mountain Roadless Area** extends west of the Snake River for over 12,800 acres.
- The **Gros Ventre Roadless Area** extends east and north of Hoback Junction for over 284,000 acres.
- The **Greyback Roadless Area** extends south of Hoback Junction for over 315,000 acres.

3.16.2 Impacts

3.16.2.1 No-Action Alternative

The No-Action Alternative would result in no impacts to roadless areas.

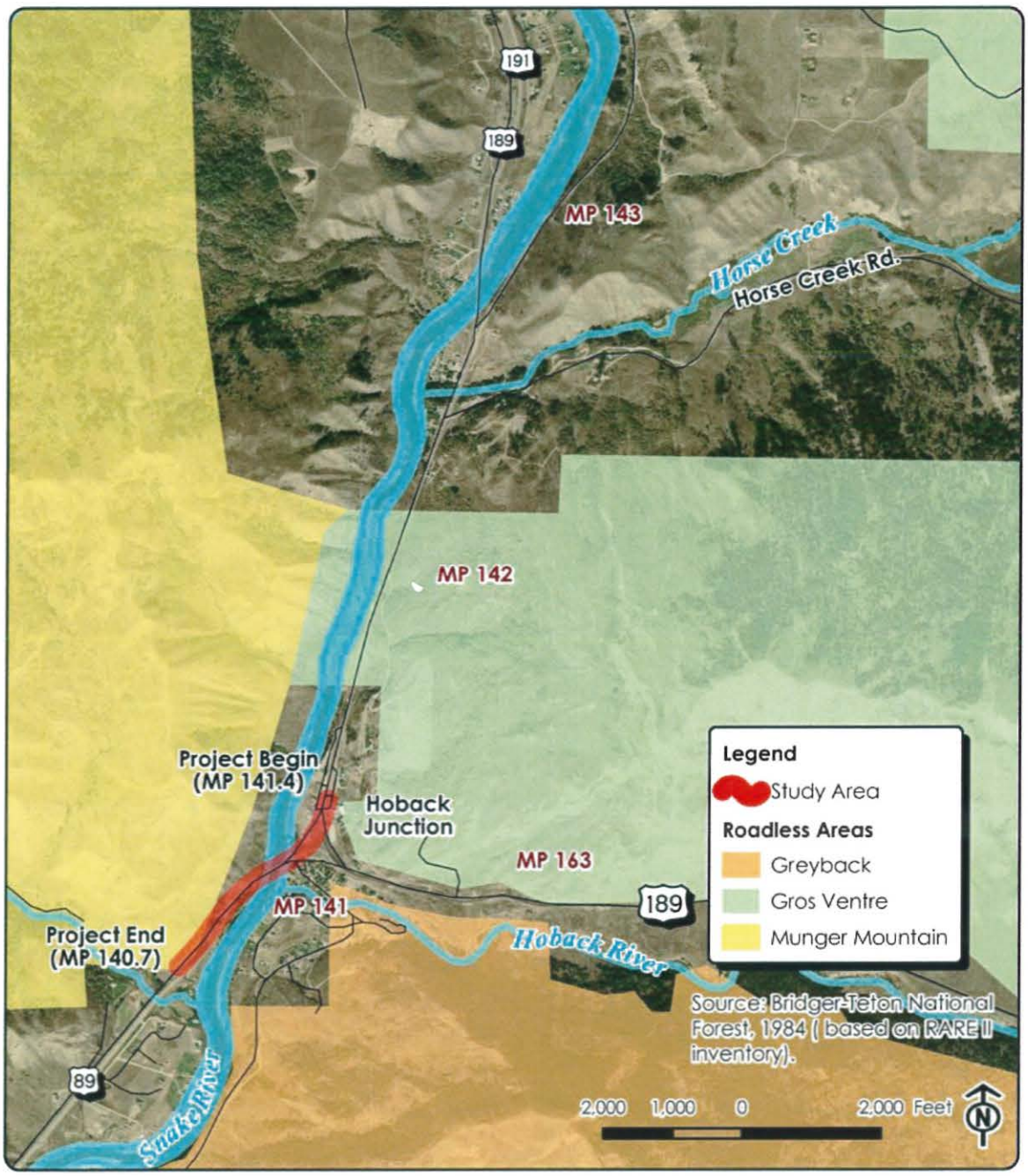
3.16.2.2 Preferred Alternative

The Preferred Alternative would not require any additional right-of-way from nearby roadless areas, and therefore would result in no impacts to roadless areas.

3.16.3 Mitigation

Since no roadless areas would be impacted, no mitigation is necessary.

Figure 3-10
Roadless Areas



Source: BTNF.

3.17 Wildlife and Fisheries

This section describes the wildlife and fisheries resources that may occur in the study area, including:

- Threatened, endangered, proposed, or candidate species listed under the Endangered Species Act
- USFS management indicator species (MIS)
- Big game
- Raptors
- Non-game wildlife species
- Waterfowl
- Upland game birds
- Small game
- Furbearers
- Fisheries

3.17.1 Threatened and Endangered Species

A request was sent to the U.S. Fish and Wildlife Service (USFWS) for a list of federally protected species potentially occurring in the study area. Six threatened, endangered, or experimental populations of listed wildlife species were identified as potentially occurring in the study area (see **Table 3-13**). Of these only one species, bald eagle, is likely to occur in the study area on a regular basis.

Table 3-13
Threatened and Endangered Listed Wildlife Species

Species	Status
Gray wolf *(Canis lupus)*	Endangered-Experimental
Grizzly bear *(Ursus arctos)*	Threatened *
North American lynx *(Lynx canadensis)*	Threatened
Whooping crane *(Grus americana)*	Experimental
Bald eagle (*Haliaeetus leucocephalus*)	Threatened *
Black-footed ferret *(Mustela nigripes)*	Endangered

Source: U.S. Fish & Wildlife Service

* Note: These species have been delisted as of August, 2007

Gray Wolf

The gray wolf is a federally listed endangered species; however, wolves in the study area are considered part of the reintroduced experimental nonessential population of Yellowstone National Park (YNP). Habitat through the study area and surrounding areas supports large numbers of ungulates and is suitable habitat for wolves. The study area is in close proximity to both the Teton and Green River wolf packs. Wolves were documented killing elk on and near the Wyoming Game & Fish Department (WGFD) Horse Creek and Camp Creek feedgrounds northeast of Hoback Junction during the 2001 to 2002 winter (WGFD, 2001). It is possible that wolves occasionally traverse through the study area; however, they may avoid the area due to the high human presence associated with Hoback Junction and the highway.

Grizzly Bear

The grizzly bear has recently been delisted as a federally listed threatened species. It historically inhabited a wide range of habitats across western and central North America, from

the Arctic Ocean to central Mexico. Most grizzly bear activity in the greater Yellowstone area occurs north and northeast of the study area. The study area is not included in the grizzly bear management situation areas designated by the Interagency Grizzly Bear Committee (IGBC, 1986). While habitat surrounding the study area could be considered suitable, the high human presence in the Hoback Junction area likely precludes heavy use by grizzly bears.

Canada Lynx

Canada lynx is a federally listed threatened species that ranges across most of northern North America, inhabiting most of Canada and Alaska. In Wyoming, lynx are confined largely to montane forests in the northwest portion of the state (Crowe, 1986). While habitat surrounding the study area could be considered suitable, the high human presence in the Hoback Junction area likely precludes use by lynx.

Whooping Crane

Whooping crane was included on the list of endangered species in 1967 prior to the enactment of the Endangered Species Act (USFWS, 1967). Historically, Wyoming was outside whooping crane habitat, except for one nesting record from YNP (Luce et al, 1999). The Snake River in the study area does not provide whooping crane habitat, and they are not expected to occur there.

Bald Eagle

Bald eagle has recently been delisted as a federally listed threatened species. The Bald eagle is still protected under the Bald Eagle Protection Act of 1940. It historically occurred over most of North America in a variety of habitats. Generally, they require areas in proximity of large water bodies for nesting, and during winter areas with readily available, abundant food sources and good roost sites. Roosts are generally old, large trees with good visibility and little human disturbance. In Wyoming, bald eagles are listed as a common resident and usually occur in coniferous forests and cottonwood/riparian habitats in the northwestern portion of the state. In the winter, the population of bald eagles in Wyoming increases due to an influx of migrants from the north. Wintering eagles are primarily found in open areas near water where they feed on fish, carrion, and waterfowl. By 1996 there were 70 known pairs nesting in Wyoming, with the majority of these occurring in Yellowstone and Grand Teton National Parks. Today, it is expected that there are substantially more nesting pairs in Wyoming and the population is believed to be growing (D. Oakleaf, WGFD, personal communication).

Records of bald eagles are common in the study area (WGFD WOS, 2002). Bald eagles occur year-round in the study area and there is one nest, the Hoback Junction nest, over ½ mile north of the study area along the Snake River. Three additional bald eagle nests occur along the Snake River corridor within a township buffer of the study area, the Munger Mountain nest, the Porcupine nest, and the South Park nest. The riparian habitat along the Snake and Hoback Rivers is considered nesting and foraging habitat for bald eagles.

Black-footed Ferret

Black-footed ferret is a federally listed endangered species that was historically distributed across the western plains of North America wherever prairie dogs occurred (Anderson et al, 1986). No suitable black-footed ferret habitat exists in or adjacent to the study area.

3.17.1.1 USFS Management Indicator Species—Big Game

Management indicator species (MIS) are those species designated by the *Bridger-Teton National Forest (BTNF) Land and Resource Management Plan*, 1990, used to indicate the effects of habitat changes associated with forest management activities. The USFS recognizes these three types of MIS for the BTNF: harvested species (big game), ecological indicator species, and sensitive species. Big game species were identified during scoping as a wildlife resource of concern.

3.17.1.2 Harvested Game Species/Big Game

Harvested MIS designated by the BTNF include mule deer, elk, moose, bighorn sheep, and pronghorn. With the exception of mountain goat, mountain lion, and black bear, harvested MIS include all of the species managed as big game by the WGFD. Five ungulate species of big game occur in or adjacent to the study area, including mule deer, elk, moose, bighorn sheep, and mountain goat. The WGFD identifies several types of seasonal ranges used by big game in the study area (see **Table 3-14**).

Table 3-14
Seasonal Ranges for Big Game Populations

Range	Definition
Crucial	Crucial range is any particular range or habitat component which determines whether a population maintains and reproduces itself at or above the WGFD population objective over the long term.
Winter	A population or portion of a population uses this habitat annually in substantial numbers only during winter (December 1 to April 30).
Winter/Yearlong	A portion of a population uses this habitat yearlong, but during winter there is a significant influx of animals into this area from other seasonal ranges.
Yearlong	A population or substantial portion of a population uses this habitat yearlong.
Spring/Summer/Fall	A population or portion of a population uses this habitat annually (May 1 to November 30), excluding winter.
Parturition	Birthing areas commonly used by a substantial number of females from a population.

Source: Wyoming Game and Fish Department, 1990.

Mule Deer

The study area passes through the northwest portion of the Sublette Mule Deer Herd Unit. The Sublette Mule Deer Herd Unit is the third largest in the state, extending from the Wind River Range northwest to the Snake River Range. The herd unit encompasses 4,225,197 acres and includes 15 Hunt Areas (see **Table 3-15**). The WGFD manages this herd unit for a post-season population objective of 32,000 deer. An estimated population of 34,700 was present in 2001, with a five-year (1996 to 2000) average of 29,140 (WGFD, 2001a). A total of 3,223 animals were

harvested in 2001 and provided 43,108 recreation days to hunters. A recreation day is defined as a day a licensed hunter spent in the field.

Table 3-15
Seasonal Ranges Among Herd Units for Potentially Affected Ungulate Big Game Species

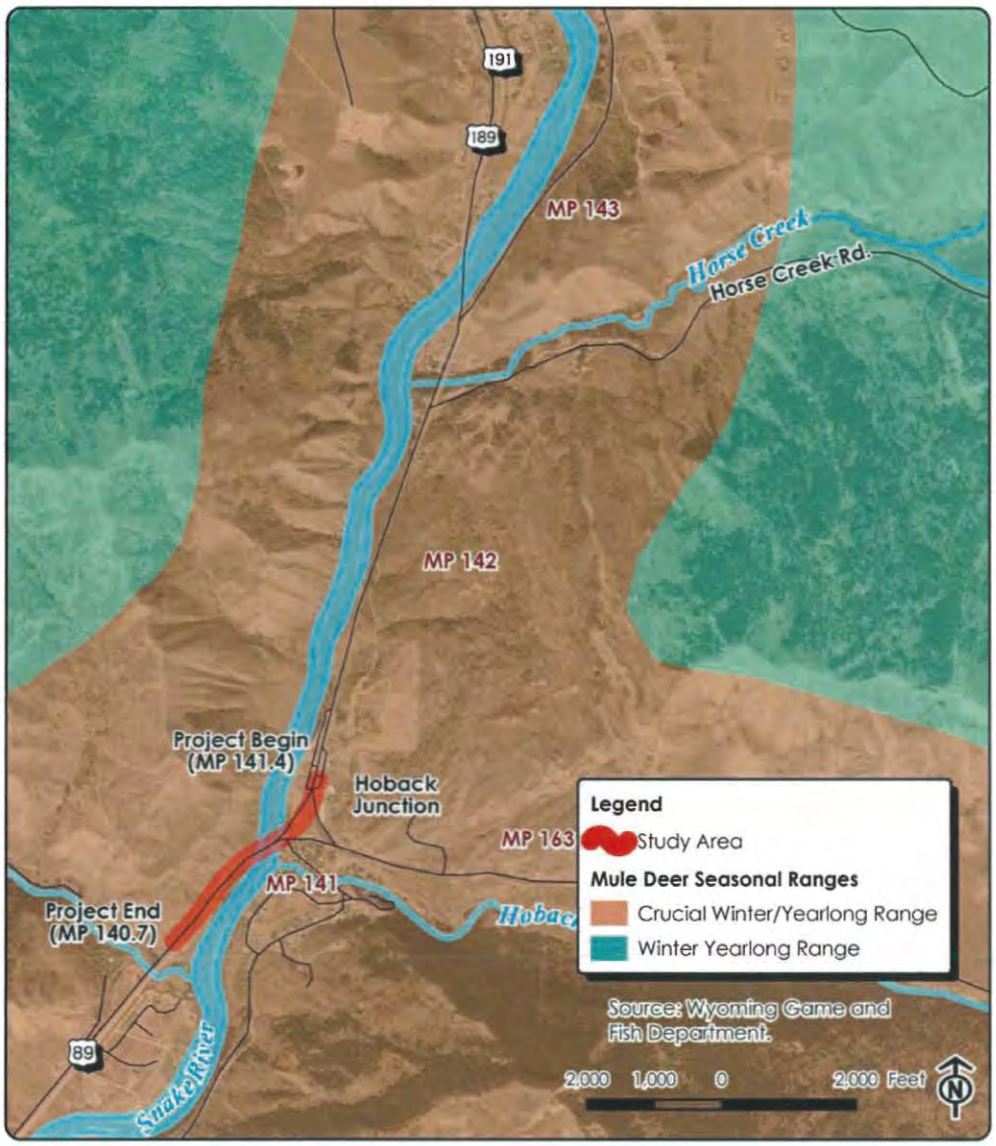
Species (Herd Unit)	Total Occupied Habitat (acres)	Area (Acres) of Seasonal Ranges Potentially Affected						
		Crucial Habitat		Spring/ Summer/ Fall	Winter	Winter/ Yearlong	Year-long	Parturition*
		Winter	Winter/ Yearlong					
Mule Deer (Sublette)	3,414,180	141,130	145,182	2,823,021	137,939	166,908	---	61,378
Elk (Fall Creek)	429,889	---	30,558	371,734	2,200	25,397	---	43,794
Moose (Sublette)	2,833,517	41,215	324,057	1,783,271	104,143	161,222	419,609	--
Bighorn Sheep (Targhee)	696,477	10,708	958	683,369	1,442	---	---	--
Bighorn Sheep (Jackson)	1,118,289	23,448	15,620	1,047,723	16,776	14,722	---	--
Mountain Goat (Palisades)	178,669	---	7,360	171,309	---	---	---	4,281

Source: BTNF
*Because parturition areas overlap other seasonal ranges, they are not included in total occupied habitat.

Deer in the Sublette Mule Deer Herd Unit are migratory, annually moving 60 to 100 miles between winter and summer ranges (Sawyer and Lindzey, 2001). These deer winter in the sagebrush deserts of the Green River Basin, then distribute themselves among five different mountain ranges (Wind River, Gros Ventre, Snake River, Wyoming, and Salt River Ranges) during the summer (Sawyer and Lindzey, 2001). Approximately 70 percent of these deer use the Hoback Basin for parturition in the month of June (Sawyer and Lindzey, 2001).

A variety of mule deer seasonal ranges occur in and adjacent to the study area, including crucial winter/yearlong, winter/yearlong, and spring/summer/fall ranges (see **Figure 3-11**). Although mule deer occupy the study area year-round, they occur at higher densities during the winter. Depending on weather conditions, mule deer generally utilize the entire study area during the winter and often move back and forth across the highway.

Figure 3-11
Mule Deer Seasonal Ranges



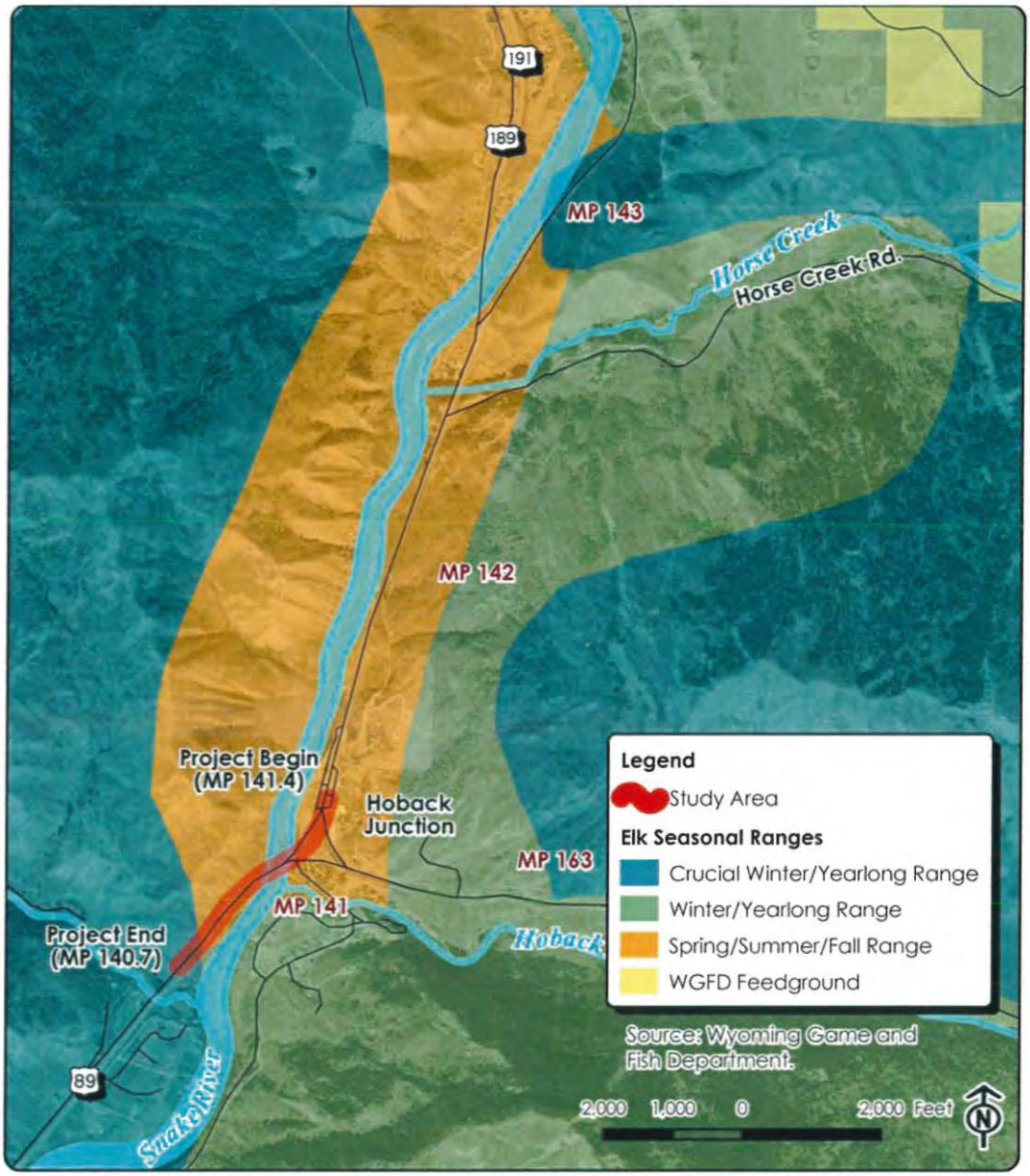
Source: WGFD.

Elk

The study area passes through the central portion of the 672-square-mile Fall Creek Elk Herd Unit. The USFS manages 91 percent of the land in this herd unit, which includes two Hunt Areas and has a post-season population objective of 4,400 elk. The Fall Creek Elk Herd Unit includes four winter feedgrounds (South Park, Horse Creek, Camp Creek, and Dog Creek) (see **Figure 3-12**) and allow the herd unit to support a much larger number of elk than could be sustained on native ranges alone (WGFD, 2000). Feeding usually begins in early to mid-

December, depending on weather conditions. During the 2001 to 2002 winter, approximately 1,200 elk were fed at South Park, 1,400 at Horse Creek, 1,000 at Dog Creek, and 1,100 at Camp Creek (WGFD, 2001a). Winter 2001 to 2002 was the first winter that wolves appeared at feedgrounds in the Fall Creek Herd Unit, killing 15 elk at Horse Creek and Camp Creek (WGFD, 2001a).

Figure 3-12
Elk Seasonal Ranges



Source: WGFD.

An estimated population of 5,259 elk was present in 2001, with a five-year (1996 to 2000) average of 4,643 (WGFD, 2001a). In 2001, 703 animals were harvested and provided 12,091 recreation days to hunters.

A variety of elk seasonal ranges occur in and adjacent to the study area, including crucial winter/yearlong, winter/yearlong, and spring/summer/fall ranges (see **Figure 3-12**). Although elk potentially occupy the study area on a year-round basis, they occur at higher densities during the winter due to the winter crucial range and nearby feedgrounds. When weather conditions allow, elk may utilize natural winter ranges adjacent to the study area.

Bighorn Sheep

The study area bisects two bighorn sheep herd units: the Targhee and Jackson. The Targhee Bighorn Sheep Herd Unit encompasses 1,138 square miles west of the study area and comprises Hunt Area 6. The WGFD manages this herd unit for a post-season population objective of 125 bighorns. Current distribution is generally restricted to the Teton Range (WGFD, 2000). An estimated population of 118 was present in 2000, with a five-year (1995 to 1999) average of 111 (WGFD, 2000). Four licenses were issued in 2000 and resulted in no harvest and 14 hunter recreation days.

The Jackson Bighorn Sheep Herd Unit encompasses 1,747 square miles east of the study area and comprises Hunt Area 7. The WGFD manages this herd unit for a post-season population objective of 500 bighorns. Although some bighorns in this herd unit remain above timberline during winter, most migrate to low-elevation winter ranges along the Gros Ventre River, National Elk Refuge, and Hoback Canyon (WGFD, 2000). An estimated population of 571 was present in 2000, with a five-year (1995 to 1999) average of 562 (WGFD, 2000). A total of 14 sheep were harvested in 2000 and provided 224 recreation days to hunters.

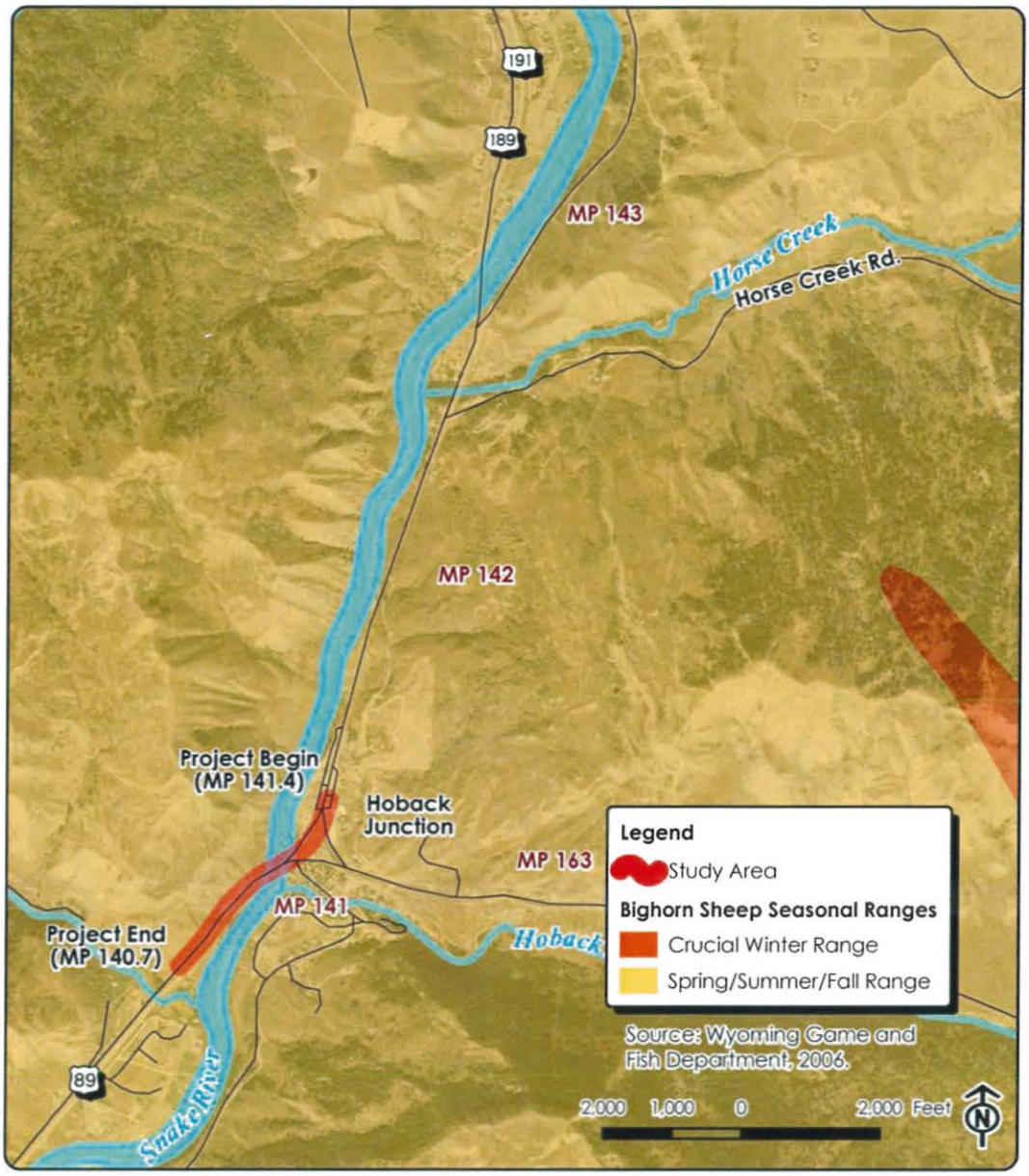
There are a variety of bighorn sheep seasonal ranges in and adjacent to the study area, including crucial winter range and spring/summer/fall ranges (see **Figure 3-13**). Identified crucial winter ranges occur on the north side of U.S. Highway 189/191 and east of the study area; however, bighorn sheep are known to utilize habitats south of the highway (G. Fralick, WGFD, personal communication).

Moose

The study area passes through the northwest portion of the Sublette Moose Herd Unit. The herd unit encompasses 5,801 square miles and includes 10 Hunt Areas. The WGFD manages this herd unit for a post-season population objective of 5,500 moose. An estimated population of 5,665 was present in 2001, with a five-year (1996 to 2000) average of 5,768 (WGFD, 2001a). A total of 551 animals were harvested in 2001 and provided 3,078 recreation days to hunters.

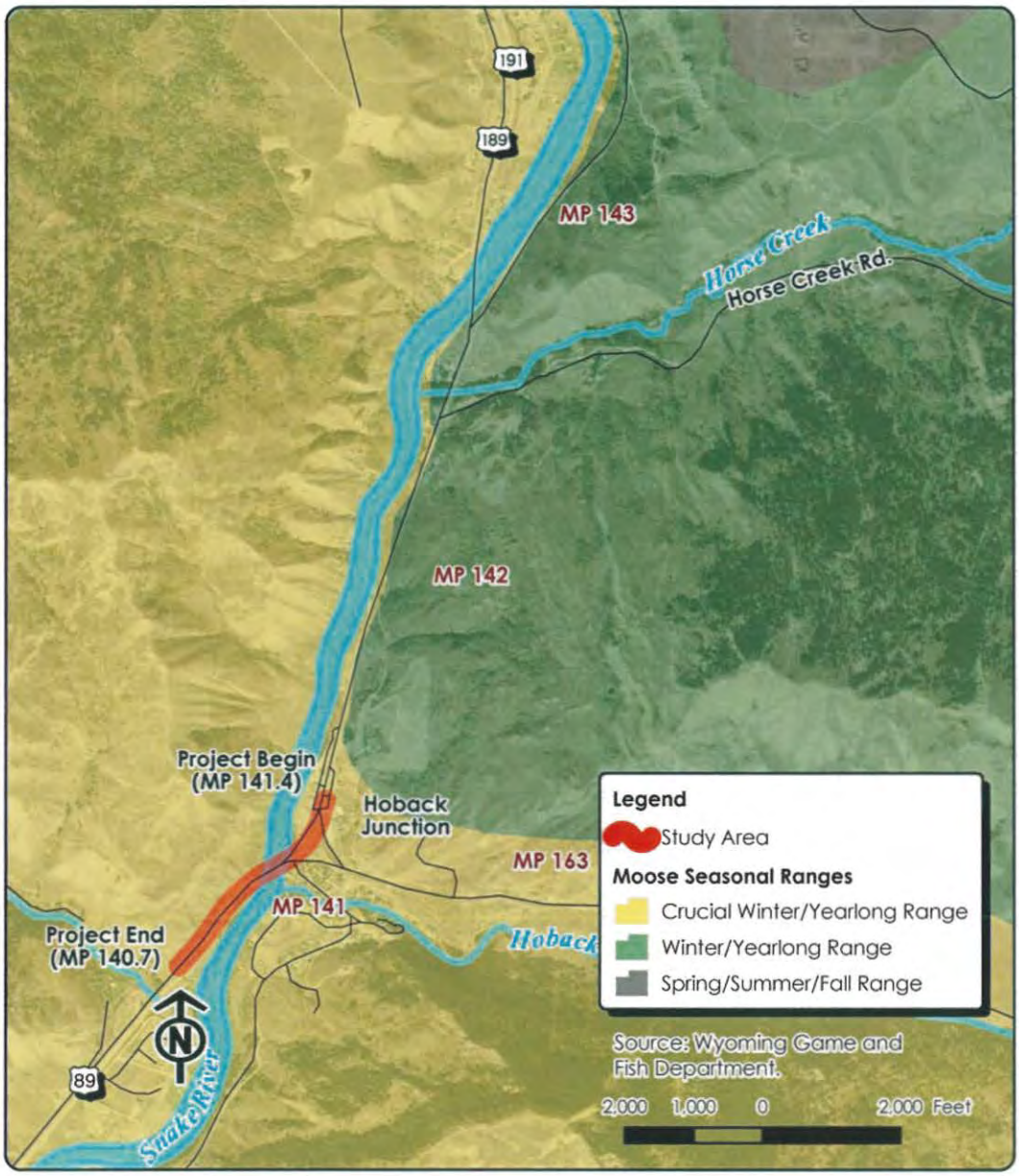
There are a variety of moose seasonal ranges in and adjacent to the study area, including crucial winter/yearlong, winter/yearlong, and spring/summer/ fall ranges (see **Figure 3-14**). Although moose potentially occupy the study area on a year-round basis, they occur at higher densities during the winter.

Figure 3-13
Bighorn Sheep Seasonal Ranges



Source: WGFD.

Figure 3-14
Moose Seasonal Ranges



Source: WGFD.

Pronghorn

Pronghorn are not normally found within the study area. The study area is not part of any pronghorn herd unit identified by the WGFD.

Mountain Goat

The portion of the study area immediately adjacent to the Snake River forms the eastern boundary of the 279 square miles Palisades Mountain Goat Herd Unit. This herd unit comprises Hunt Area 2 and is managed by the WGFD for a post-season population objective of 50 animals. This population originated from mountain goats that dispersed from Idaho, following transplant operations conducted by the Idaho Game and Fish Department in the 1960s and 1970s. Wildlife managers in Wyoming and Idaho coordinate surveys and share management of this interstate population. An estimated population of 70 was present in 2000, with a five-year (1995 to 1999) average of 36 (WGFD, 2000). Three licenses were issued and filled in 2000, and provided 12 recreation days to hunters.

Mountain goat seasonal spring/summer/fall range occurs west of the study area (see **Figure 3-15**). Mountain goats are known to cross the Snake River and U.S. Highway 26/89, southwest of the study area.

White-tailed Deer

White-tailed deer are not widely distributed in the study area, nor is the study area part of any white-tailed deer herd unit identified by the WGFD.

Mountain Lion

The study area passes through the Mountain Lion Hunt Area 2 (Teton), which has an annual mortality quota of 12 lions, but cannot exceed 6 females. A total of 12 lions were harvested in 2000, including 6 males and 6 females (WGFD, 2001b).

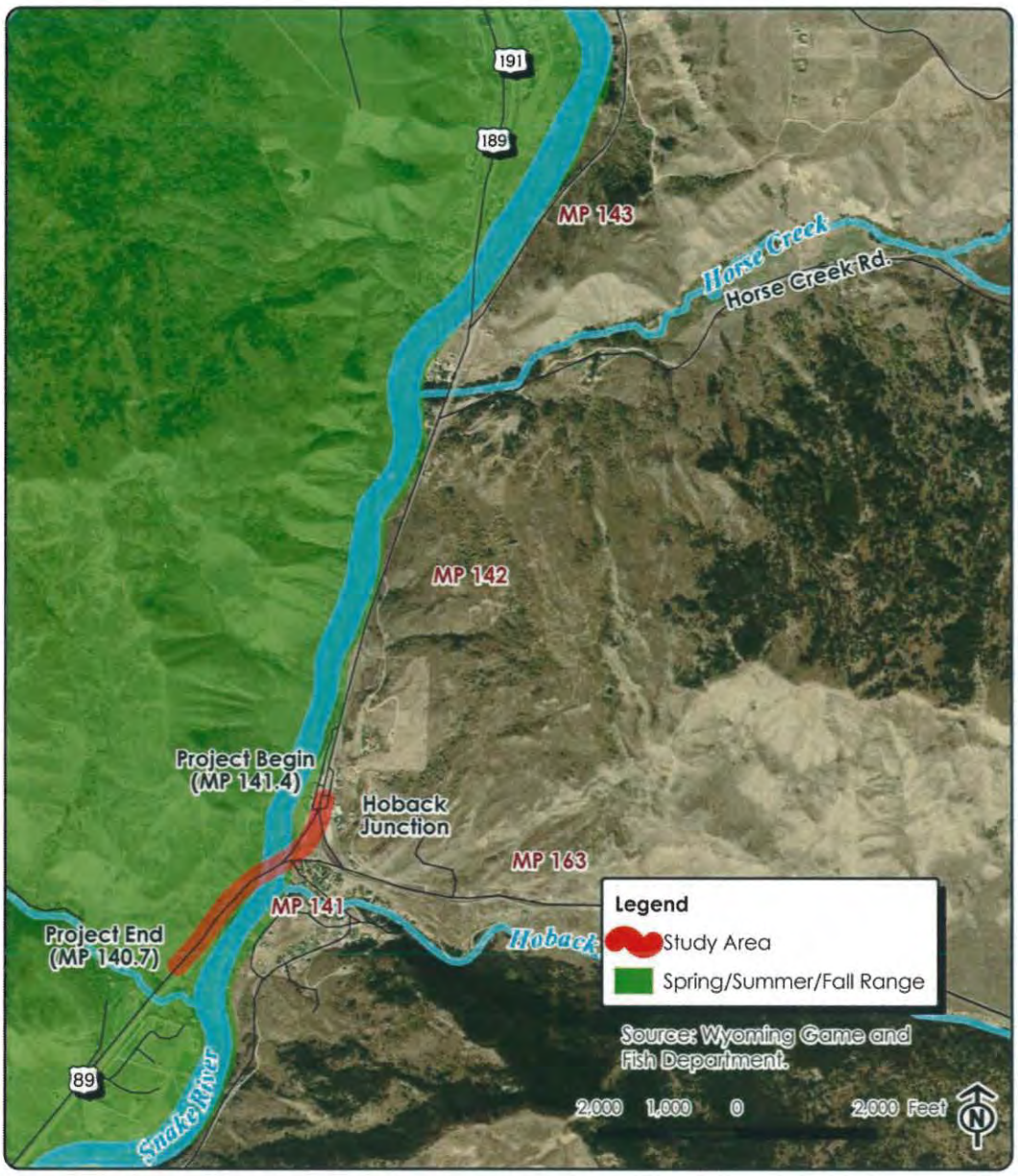
Black Bear

The study area borders Black Bear Hunt Area 17 (Hoback) to the south. Hunt Area 17 is part of the Greys River Black Bear Management Unit, which allows both spring and fall hunting seasons with female mortality quotas of nine and four, respectively. A total of 531 recreation days were provided to hunters during 2000 (WGFD, 2001b). The study area also borders Black Bear Hunt Area 18 (Fall Creek) to the west and Hunt Area 20 (Gros Ventre) to the east. Both Hunt Areas 18 and 20 are part of the Jackson Black Bear Management Unit, which allows both spring and fall hunting seasons with female mortality quotas of nine and seven, respectively. During 2000, Hunt Area 18 provided 211 recreation days to hunters, while Hunt Area 20 provided 947 recreational days to hunters (WGFD, 2001b).

3.17.1.3 Vehicle-Related Mortality of Big Game Species

Because U.S. Highway 89/26 and U.S. Highway 191/189 traverse seasonal ranges and movement corridors for many of the big game species, collisions between vehicles and animals are not uncommon, particularly during winter. Based on data collected and summarized by the Jackson Hole Wildlife Foundation (JHWF), a minimum of 14 vehicle-deer collisions occurred in the study area between 1990 and 2002 (JHWF, 2002). No moose or elk collisions were located in the study area, but roadkills of both of these species have been found along the highways nearby. Also no big game roadkills were found along the small portion of U.S. Highway 191/189 in the study area.

Figure 3-15
Mountain Goat Seasonal Ranges



Source: WGFD.

From 1990 to 1995 the JHWF compiled data collected by WYDOT and Teton County Wildlife Incident Police Reports. WYDOT data included only those vehicle-animal collisions that resulted in at least $500 total damages. Beginning in 1995, the JHWF implemented its own data collection system where volunteers monitored and recorded big game roadkills for specific sections of highway. Personnel from WYDOT, WGFD, and Teton County Sheriff's Department

supplemented this database by using JHWF data sheets. The following measures were taken to eliminate potential duplicate observations:

- All observations that occurred within 0.25 mile of each other during a 48-hour time period were considered one observation.
- Only one JHWF volunteer was assigned to a particular section of highway.
- The WYDOT Teton County Maintenance Crew generally removed roadkill carcasses within a 24-hour period.

Of the 14 deer roadkills, all occurred between the months of September and February, with the month of January having the most roadkills (5) during the study period. The higher incidence of roadkills during the winter is presumably a result of mule deer congregating on lower-elevation winter ranges that are situated near the highway.

3.17.1.4 Upland Game Birds

Blue grouse and ruffed grouse are the most common upland game bird species in the greater study area, although incidental reports of sage grouse and gray partridge have been reported. Most sage grouse occur north of the study area in sagebrush habitats adjacent to the Snake River and Gros Ventre River. Both blue and ruffed grouse are ground nesters that occur predominately in coniferous or aspen habitats (Luce et al, 1999).

3.17.1.5 Small Game

Nuttall's cottontails, desert cottontails, red squirrels, and snowshoe hares are likely the only small game species in the study area. While the Nuttall's cottontails often prefer riparian habitats, the desert cottontail typically occurs in shrub-dominated habitats (Clark and Stromberg, 1987). Both the red squirrel and snowshoe hare are most often found in coniferous habitats (Clark and Stromberg, 1987). All of these small game species provide food sources for a variety of avian and mammalian predators.

3.17.2 USFS Management Indicator Species

3.17.2.1 Ecological Indicator Species

Ecological indicator species represent species restricted to specific habitat types during some phase of their lifespan. Because these species are limited to specific habitat conditions, they are particularly sensitive to environmental disturbance. Given their sensitive response to habitat changes, the USFS is able to use these species as indicators of ecological conditions of an area. Ecological indicator species for the BTNF include the pine marten *(Martes americana)* and Brewer's sparrow *(Spizella breweri)*.

Pine (American) Marten

Pine martens, a member of the mustelid (weasel) family, occupy a narrow range of habitats in or adjacent to coniferous forests (Allen, 1987). More specifically, they associate closely with late-

successional stands of mesic conifers, especially those with complex physical structure near the ground (Buskirk and Powell, 1994). Pine marten occupy large home ranges and occur at low densities (Buskirk and Ruggiero, 1994). While suitable habitat and observations of the species have been documented in the township in which the study area occurs (Luce et al, 1999), pine marten are unlikely to occur in habitats immediately adjacent to the highway.

Brewer's Sparrow

Brewer's sparrows are a common summer resident throughout Wyoming. Brewer's sparrows typically nest low in sagebrush or other shrubs and feed on the ground, in tall grass, and in shrubs (Byers et al, 1995). Suitable habitat exists in the study area within and adjacent to sagebrush vegetation.

3.17.2.2 USFS Sensitive Species

USFS sensitive species are those for which population viability is a concern. Sensitive species identified by the BTNF include four mammals, nine birds, one amphibian, and two fishes (**Table 3-16**). Records of species occurrence were obtained from three sources: Wyoming Natural Diversity Database (WYNDD); WGFD's Wildlife Observation System; and WGFD's *Atlas of Birds, Mammals, Reptiles, and Amphibians* (Luce et al, 1999).

Table 3-16
Sensitive Species for the Bridger-Teton National Forest

Species	Habitat	Occurrence*
Mammals		
Wolverine *(Gulo gulo)*	Dense coniferous forest, alpine tundra	Unlikely in study area but potential nearby resident; records in region
Fisher *(Martes pinnanti)*	Dense coniferous forest with high canopy closure	Accidental; records in region
Townsend's Big-eared Bat *(Plecotus townsendii)*	Coniferous and deciduous forests, foothill shrubs and caves	Potential resident; records in region
Spotted Bat *(Euderma maculatum)*	Low deserts to coniferous forests; cliffs over perennial water	Unlikely; no records
Birds		
Common Loon *(Gavia immer)*	Lakes above 6,000 feet	Unlikely in study area; potential summer resident and migrant in region; records in region
Harlequin Duck (Histrionicus histrionicus)	Fast, turbulent rivers in high mountains	Potential summer resident along rivers; records in area
Trumpeter Swan (Cygnus buccinator)	Marshes with open water, rivers, lakes	Unlikely in study area; Resident throughout region; records in area
Boreal Owl (Aegolius funereus)	High-elevation spruce/fir forests	Unlikely in study area; records in region
Flammulated Owl (Otus flammeolus)	Open, mixed coniferous forest, Ponderosa pine	Potential resident; records in region
Three-toed Woodpecker (Picoides tridactylus)	Lodgepole and spruce/fire forests, burns	Potential resident; records in region
Northern Goshawk (Accipiter gentilis)	Mature coniferous forest and aspen stands	Potential resident; records in region

continued

Table 3-16 (cont'd.)
Sensitive Species for the Bridger-Teton National Forest

Species	Habitat	Occurrence*
Birds (cont'd.)		
Great Gray Owl (Strix nebulosa)	Mixed coniferous forest with open areas	Potential resident; records in region
Peregrine Falcon (Falco peregrinus)	Mountainous zones or cliffs near large lakes and rivers	Potential resident; records in region and area
Amphibians		
Spotted Frog *(Rana pretiosa)*	Marshy ponds/lakes and slow moving streams	Potential resident; records in region and area.
Fish		
Colorado River Cutthroat Trout *(Oncorhynchus clarki pleuriticus)*	Cold, clear water in rocky, steep gradient streams	Unlikely; no records
Snake River Fine Spotted Cutthroat Trout *(Oncorhynchus clarki spp.)*	Native of Snake River Drainage, mainly above Palisades Reservoir	Resident; records in study area

Source: BTNF.
*For the purposes of this document, 'region of occurrence' was defined by latilong #8 (from Dorn and Dorn, 1990) that encompasses the northwest portion of the BTNF; 'area of occurrence' was defined as the local area adjacent to the Snake and Hoback Rivers and Highway corridor.

3.17.3 Non-Game and Other Wildlife Species

3.17.3.1 Non-Game Wildlife Species

Raptors

Numerous raptor species are known or expected to occur in the study area or nearby (**Table 3-17**). Documented breeding resident raptors include bald eagle, peregrine falcon, and osprey. Many other species are likely or potentially breeding species in appropriate habitat within the project region including turkey vulture, northern harrier, sharp-shinned hawk, Cooper's hawk, northern goshawk, Swainson's hawk, red-tailed hawk, golden eagle, American kestrel, merlin, prairie falcon, flammulated owl, great-horned owl, northern pygmy owl, long-eared owl, short-eared owl, great gray owl, boreal owl, and northern saw-whet owl. Rough-legged hawks are potential winter residents. Several species of raptors are considered USFS sensitive species and have been documented within the latilong in which the study area occurs (see **Table 3-17**). Latilong is defined as the region encompassed by one degree of latitude and one degree of longitude (approximately 70 miles by 50 miles).

The bald eagle was deliseted in August 2007 and is discussed in Section 3.17, Wildlife and Fisheries. Peregrine falcon, a former threatened species, nests occur in both Horsethief Canyon and Porcupine Creek. The USFWS removed peregrine falcon from the federal list of threatened and endangered species in 1999.

Table 3-17
Raptor Species Potentially Occurring in the Study Area

Species	Habitat	Potential Occurrence
Turley Vulture *(Carthartes aura)*	Mixed habitat with open areas, generally below 8000ft	Potential breeding resident
Osprey *(Pandion haliaetus)*	Lakes and Rivers associated with coniferous and cottonwood forest	Breeding resident
Bald Eagle *(Haliaeetus leucocephalus)*	Lakes and Rivers associated with coniferous and cottonwood forest	Breeding resident
Northern Harrier *(Circus cyaneus)*	Grass and grass-like habitats, marshes, open shurblands	Potential breeding resident
Sharp-shinned Hawk *(Accipiter striatus)*	Mixed forested habitats	Potential breeding resident
Cooper's Hawk *(Accipiter cooperii)*	Mixed forested habitats	Potential breeding resident
Northern Goshawk *(Accipiter gentiles)*	Mature coniferous forest and aspen stands	Potential breeding resident
Swainson's Hawk *(Buteo swainsoni)*	Mixed habitat with open areas, generally below 9000ft	Potential breeding resident
Red-tailed Hawk *(Buteo jamaicensis)*	Mixed habitat with open areas, generally below 9000ft	Potential breeding resident
Rough-legged Hawk *(Buteo lagopus)*	Mixed habitat with open areas	Potential winter resident
Golden Eagle *(Aquila chrysaetos)*	Mixed habitat with open areas	Potential breeding resident
American Kestrel *(Falco sparverius)*	Mixed habitat with open areas, generally below 9000ft	Potential breeding resident
Merlin (Falco columbarius)	Mixed forest and wooded habitats generally below 8500ft	Potential breeding resident
Prairie Falcon (Falco mexicanus)	Cliffs in mixed habitats with open areas	Potential breeding resident
Peregrine Falcon (Falco peregrinus)	Mountainous zones or cliffs near large lakes and rivers	Breeding resident
Flammulated Owl (Otus flammeolus)	Montane forests; Ponderosa pine	Possible breeding resident
Great-horned Owl (Bubo virginianus)	Cottonwood riparian and mixed habitats generally below 9000ft	Likely breeding resident
Northern Pygmy Owl (Glaucidium gnoma)	Coniferous and aspen forests	Potential breeding resident
Great Gray Owl (Strix nebulosa)	Mixed coniferous forest with open areas	Potential resident; records in area
Long-eared Owl (Asio otus)	Cottonwood riparian and mixed habitats generally below 8000ft	Potential breeding resident
Short-eared Owl (Asio flammeus)	Shrublands, grasslands, marshes	Possible breeding resident
Boreal Owl (Aegolius funereus)	High-elevation spruce/fir forests	Potential breeding resident
Northern Saw-whet Owl *(Aegolius acadicus)*	Coniferous and aspen forests	Potential breeding resident

Source: USFS

Waterfowl

Riparian habitats associated with the Snake River and Hoback River provide habitat to a variety of waterfowl species. Although most species of waterfowl are considered migratory, some are year-round residents of the Snake River watershed (e.g., trumpeter swan, Canada goose). Common summer residents include green-winged teal, mallard, northern pintail, gadwall, and American wigeon. Generally, waterfowl species within the study area will be limited to the aquatic portion of the riparian habitat type and adjacent areas for potential nesting. Some species, however, will utilize agricultural or grass fields for foraging and may occur some distance from water.

Furbearers

A variety of furbearers occur in the greater study area, including beaver, muskrat, mink, marten, striped skunk, red fox, raccoon, coyote, bobcat, ermine, river otter, long-tailed weasel, black bear, grizzly bear, gray wolf, and mountain lion. Muskrat, beaver, mink, raccoon, ermine, and river otter are associated with the riparian habitats, while the coyote, red fox, long-tailed weasel, and bobcat would be expected to occur throughout all habitat types present.

Small Animals

A variety of nongame mammals, birds, reptiles, and amphibians may inhabit areas within or near the study area. Non-game mammals known or expected to occur in the study area include many small mammals such as shrews, voles, mice, rats, gophers, squirrels, and chipmunks. All of these species serve as important prey for mammalian and avian predators.

Riparian zones associated with the Snake River and Hoback River provide habitats to more than 150 species of non-game birds, including shorebirds, jays, sparrows, flycatchers, woodpeckers, finches, orioles, hummingbirds, warblers, wrens, nuthatches, grosbeaks, and others.

While 10 species of reptiles or amphibians potentially occur in the study area, documented records were found only for the boreal toad, boreal chorus frog, tiger salamander, rubber boa, and spotted frog (Wyoming Gap Analysis, 1996, WYNDD, 2002).

3.17.4 Fisheries

There is a variety of fishes in the Snake River and lower section of the Hoback River. Those portions of the Snake River and Hoback River located in the study area are considered Class I and Class III trout streams by the WGFD, respectively. Class I streams are considered premium trout waters supporting fisheries of national importance, while Class III streams are considered important trout waters supporting fisheries of regional importance (WGFD, 1991). Native fish species in these river reaches include the Fine-spotted Snake River cutthroat *(Oncorhynchus clarki clarki)*, Mountain whitefish *(Prosopium williamsoni)*, Utah sucker *(Catostomus ardens)*, Bluehead sucker *(Catostomus discobolous)*, Speckled dace *(Rhinichthys osculus)*, Longnose dace *(Rhinichthys cataractae)*, Piaute sculpin *(Cottus beldingi)* and Mottled sculpin *(Cottus bairdi)* (R. Hudelson, personal communication. WGFD, 8-21). The Fine-spotted Snake River cutthroat is considered a USFS sensitive species.

3.17.5 Impacts

This section discusses the potential impacts from the alternatives to wildlife and fisheries resources, including threatened and endangered species.

3.17.5.1 Methods

Because of the nature of potential impacts, a mostly qualitative approach was taken to assess the impacts to wildlife and fisheries. Literature and expert opinion were reviewed to help determine potential impacts not directly related to habitat loss, such as potential for changes in disturbance, movement barriers, and vehicle-related mortality rates. To the extent possible, habitat losses to big game species, threatened and endangered species, and other sensitive or focal species were assessed quantitatively by estimating loss of vegetation communities and seasonal ranges from the various alternatives. The Wyoming Gap Analysis Project (GAP) Analysis was used to define land cover (vegetation types) in and near the study area, and this was used as an index to the suitability of the area for any particular species. GAP analysis is a scientific means for assessing to what extent native animal and plant species are being protected. The WGFD big game seasonal range maps were used to define potential habitat for big game species (WGFD 2002).

The calculation of impacts for the physical removal of habitat excludes the existing road and shoulder template. The proposed dimensions for the Preferred Alternative (see Chapter 2.0) were used to calculate the total new area of roadway. The assumption was made that the clear zones of the existing road generally matched the adjacent land cover as identified by the GAP Analysis; however, because of the existing highway and associated disturbances, the existing clear zones may generally only provide marginal habitat for some species of wildlife. The quantity of disturbance or loss to habitat presented thus overestimates true loss of habitat for any given species because it includes the existing clear zones (marginal habitat). This approach ensures a conservative estimate of the direct impacts (i.e., the actual impact would be less than the estimates reported).

The types of impacts to wildlife and fisheries for the Preferred Alternative include:

- Loss of habitat.
- Disturbance or displacement due to highway construction and operation.
- Potential movement barriers due to highway construction and operation.
- Potential mortality (i.e., roadkills).

Project-related impacts to wildlife and fisheries include both short-term impacts due to construction of the Preferred Alternative and long-term impacts due to operation and maintenance of the highway (**Table 3-18**). Direct impacts are those resulting from the proposed project, while indirect impacts are those caused by the Preferred Alternative that are reasonably expected to occur, and which may be further removed in distance and time.

Table 3-18
Potential Impacts to Wildlife and Fisheries

Impact Duration	Impact Type	
	Direct	**Indirect**
Short Term	▪ Loss of habitat to construction areas that would be reclaimed ▪ Mortality from construction or related activities	▪ Affecting movement and distribution patterns due to construction activities ▪ Affecting or disturbing species behavior due to construction activities
Long Term	▪ Permanent loss of habitat to wider roadway and clear zones ▪ Potential mortality from improved roadway	▪ Affecting movement and distribution patterns due to new roadway and associated infrastructure (e.g., retaining walls, guardrails, bike paths) ▪ Affecting or disturbing species behavior due to new roadway and associated infrastructure ▪ Reduction in habitat connectivity due to difficulties with crossing a wider roadway

Habitat Loss

The short-term habitat losses from the Preferred Alternative would include those areas disturbed during construction, but later reclaimed to native vegetation. Short-term disturbance includes the loss of habitat as a result of construction activities, including the removal of vegetation and topsoil required for road and slope construction. It is assumed that short-term habitat losses are temporary in nature and over time, and vegetation would recover and provide similar habitat to that prior to construction. The duration of short-term losses would largely depend on success of reclamation and natural vegetation recovery.

Long-term habitat losses from the Preferred Alternative would include those areas converted from native vegetation to pavement or other permanent features including the bridge. Additionally, if wildlife movements are affected and the roadway is no longer permeable to some species, indirect habitat losses may occur because areas of suitable habitat are no longer available to those species. Quantifying indirect habitat losses of this nature is difficult. However, due to the general surrounding landscape and land cover (vegetation), and while the expanded new highway may create a barrier to movement for some individuals of a species, access to habitat on either side of the highway would not be affected on a species level. For example, the species distribution (range) for small animal species for which the highway could create a movement barrier encompasses habitat on either side of the highway.

Displacement/Disturbance/Avoidance

Increased levels of human disturbance (e.g., traffic, noise, equipment) would likely cause some wildlife species or individuals to avoid the study area during the construction phase. While animals can and do become accustomed to human activity, they are generally sensitive to human encroachment. The presence of the construction work force, heavy machinery, and construction traffic would likely lead to temporary wildlife displacement for individuals that occur in the vicinity of the project. The area in which wildlife is affected varies depending on

the type of activity (e.g., blasting versus surveying), surrounding topography, physiographic and vegetative features (e.g., open meadow versus forested slope), and sensitivity of the species. Some species may be more susceptible to displacement than others, but all species inhabiting adjacent areas may periodically be disturbed or displaced by construction traffic and other human activity. For the purposes of this analysis, the area of effect is the construction zone and the area encompassed by a 0.5-mile buffer. It is assumed that wildlife within this buffer would be subject to disturbance from the project. Because of the mobility of many species, they are generally capable of avoiding activities causing disturbance and thus may minimize disturbance impacts.

Movement Barriers

The Preferred Alternative could create both short- and long-term barriers to wildlife movement due to construction and the increased width of the highway. Movement of wildlife across the roadway during the construction phase of the Preferred Alternative is expected to be reduced because of construction equipment and human disturbances associated with construction. Following construction, the Preferred Alternative may have a greater effect on wildlife movement compared to pre-construction levels, due to the wider highway; however, given the current level of development in the Hoback Junction study area neither alternative is expected to cause a substantially greater barrier to movement over the existing conditions.

Wildlife-Vehicle Collisions

The study area supports a variety of wildlife species that frequently or seasonally cross the roadway. In particular, big game species, such as deer, elk, and moose, may increase in numbers during winter along the lower-elevation habitats adjacent to the study area. The short-term risks of wildlife-vehicle collisions are expected to be minimal because traffic speeds would be reduced during the construction phase, and the presence of the construction activity is expected to displace wildlife away from the highway. However, because the wider road width, increased traffic volumes, and increasing species populations are generally believed to increase the potential for wildlife-vehicle collisions, the long-term risk of wildlife-vehicle collisions may increase in areas where safe highway crossing is not available. In general, because of the already developed nature of the Hoback Junction study area, few wildlife crossings are anticipated and no change in vehicle-related mortality due to the Preferred Alternative is expected.

3.17.5.2 No-Action Alternative

Under the No-Action Alternative, no additional impacts to wildlife and fisheries from a highway construction project would be expected. Impacts to wildlife that occur in the study area would be expected to remain. Existing conditions, including increasing traffic volumes and recreational use of the area, would remain and continue to affect these species.

Construction activities in the corridor would include future maintenance projects and would not be expected to cause substantial displacement of wildlife from construction zones. Removal of vegetation for clear zones or outside the highway right-of-way would not occur unless dangerous conditions existed that could affect operation of the highway. In general, no wildlife

habitats would be disturbed or lost and construction activities that could produce a disruption of normal behavior (e.g., nesting activity, foraging) would be limited to the minimum necessary for maintaining the highway in its current condition.

The level of disturbance or displacement-related impacts from the highway would continue to increase as traffic volume increases. This incremental change in impacts is difficult to measure because it is a gradual continual change and many wildlife species have the capacity to habituate to disturbances and changes in disturbance levels.

In general, because of the already developed nature of the Hoback Junction study area, few wildlife crossings are anticipated and no change in vehicle-related mortality due to increase traffic is expected. The overall increase in traffic on the road may increase the potential for traffic accidents, which could increase the potential for oil or gas to enter streams, thereby affecting fisheries.

3.17.5.3 Preferred Alternative

Threatened and Endangered Species

Bald eagle, gray wolf, grizzly bear, and lynx could potentially occur in the study area based on species range and occurrence data in the Greater Yellowstone region. The grizzly bear and the bald eagle have been delisted. The eagle is still protected under the Bald and Golden Eagle Protection Act. Impacts to these species would potentially vary by species.

Because of the relatively developed nature of the study area (when compared to surrounding area), high traffic levels and human presence, wolf, grizzly bear, and lynx are not expected to occur frequently or in large numbers in the study area. For example, Hoback Junction is essentially a rural subdivision. Wolves, grizzly bear, and lynx are generally sensitive to human disturbance and are expected to avoid areas with high human presence. They are not expected to occur in the study area and probably do not use habitat surrounding the area with any regularity because of the high potential for human disturbance. Because of the lack of or minimal occurrence of these species in the study area, impacts, such as habitat loss, disturbance and displacement, movement barrier, and mortality, are not expected to occur or occur at a measurable level; therefore, the Preferred Alternative would not adversely affect these species.

Bald eagles occur in the study area. There is a monitored nest along the Snake River north of the study area near the highway, and bald eagles likely use much of the river riparian corridor as they travel, forage, and roost.

The U.S. Fish and Wildlife Service has determined that the Preferred Alternative will not adversely affect the bald eagle based on the distance of the nesting pair of eagles (more than 0.5 miles) from the project and the demonstrated tolerance to disturbance by this pair. See USFWS letter dated July 11, 2007 in Appendix C.

Habitat Loss

Habitat loss impacts for the study area are minor. Approximately 2.5 acres of Mountain Big Sagebrush vegetation would be lost on the west (south) end of the project (from MP 140.7 to the bridge over the Snake River). While bald eagles forage along the Snake River corridor, they generally occur in riparian forest habitat where there are perching and nesting opportunities. Loss of 2.5 acres of Mountain Big Sagebrush vegetation would not affect bald eagles.

Disturbance/Displacement

Because bald eagles could occur in the study area, they could potentially be subject to disturbance-related impacts from construction and operation/maintenance of the highway. Adult eagles are highly mobile, and it is believed that they could remove themselves from areas of disturbance. However, if construction occurs during the nesting period and eagles associated with an active nest are disturbed enough that they do not continue their normal breeding activity, loss of eggs, nestlings, or juvenile eagles could occur. The nearest bald eagle nest, Hoback Junction pair, is located greater than ½ mile north end of the study area, on the west side of the river. This nest could be subject to construction-related disturbance if it is active during the construction period but due to the distance of greater than ½ mile there would be no adverse affect.

The level of disturbance associated with the highway following construction is expected to increase over time with increases in traffic. Traffic volume is not expected to change because of the Preferred Alternative. The extent to which this increasing level of disturbance would affect bald eagles is difficult to quantify; however, the increase would be gradual over time. It is expected that bald eagles in the area would continue to become used to the highway disturbance and would likely to continue to increase in numbers in the region as the species continues to recover.

Movement Barrier

The Preferred Alternative would not create a barrier to bald eagle movement, a highly mobile aerial species.

Mortality

Bald eagles will frequently forage on carrion, particularly during winter months when fish resources may be less available. Road-killed wildlife could be used as a source of food. Bald eagles foraging on road-killed wildlife may be at greater risk of a vehicle collision; however, no bald eagle roadkills were reported from a study in Yellowstone National Park (Gunther et al. 1998) or during a 10-year monitoring study of the highway by the JHWF. The possibility of a road-killed bald eagle is considered rare, not likely to occur, and essentially immeasurable. WYDOT has a policy to remove roadkill within 24 hours of a report to try to minimize impacts to bald eagles.

Big Game, Non-Game Species, and Other Wildlife

Disturbance/displacement, movement barrier, and potential mortality impacts to wildlife are not expected to be greater than the existing conditions. Because of the nature of the existing

corridor through the study area (e.g., highly developed), disturbance and displacement impacts are not expected to increase from construction or after it is complete. Additionally, it is not expected that the Preferred Alternative would create any increase in movement barrier for wildlife over the existing condition. The occasional wildlife individual that wanders into Hoback Junction may be at risk of vehicle collision; however, the completed road construction project would effectively slow traffic through this area, may reduce the potential for roadkills and few, if any, roadkills are expected to occur on the Snake River bridge. The area with highest potential for disturbance impacts or mortality impacts would be the approximately 0.25-mile segment from the study area end (MP 140.7) to the Snake River bridge.

Habitat Loss

Impacts to big game species were estimated based on losses to seasonal ranges as identified by the WGFD. Impacts to different range types are specific to individual species and should not be considered cumulative; range for all species overlap within the study area. For example, mule deer and moose crucial winter ranges overlap, so the total loss of crucial winter range is not the sum of the loss for both species. As with the threatened and endangered species, much of the range within the study area is considered marginal habitat for big game species because of the relatively developed nature of the study area and the high human presence (when compared to surrounding areas). Acres of habitat loss are approximate because some of the area included would not be suitable for big game occurrence (e.g., housing or developed areas).

Habitat loss impacts in the study area would be minor. Approximately 2.5 acres of Mountain Big Sagebrush vegetation would be lost in mule deer crucial winter range and moose crucial winter yearlong range on the west or south end of the study area (from MP 140.7 to the Snake River bridge).

USFS Management Indicator and Sensitive Species

Impacts to USFS Indicator Species and Sensitive Species are similar in nature to those for threatened and endangered species or other wildlife. The potential habitat loss impacts vary by species but are minor and would only occur to species that occupy mountain big sagebrush habitat. Most of the sensitive species are not expected to occur in the study area and would not be affected. For example, for those species inhabiting coniferous forest vegetation types, there would be minimal or no impacts. Species that inhabit sagebrush or shrub-type habitats, such as Brewer's sparrow, would potentially be affected most by loss of habitat impacts. Approximately 2.5 acres of Mountain Big Sagebrush vegetation would be lost due to implementation of the Preferred Alternative.

Disturbance and displacement, movement barrier, and potential mortality impacts depend largely on the presence of a species near the construction or highway. Most of the USFS species are not expected or only occasionally occur near the existing highway, and potential impacts are not expected to be greater than the existing conditions. Because of the highly developed nature of the existing corridor through the study area, disturbance and displacement impacts are not expected to increase from construction or after completion. Additionally, it is not expected that the Preferred Alternative would create any increase in movement barrier for wildlife over the

existing condition. The finished road, which would effectively slow traffic through this area, may reduce the potential for roadkills and few, if any, roadkills to USFWS Indicator or Sensitive Species are expected to occur in the study area. The area with highest potential for disturbance impacts or mortality impacts would be the approximately 0.25-mile segment from the southern terminus (MP 140.7) to the Snake River bridge; however, disturbance related effects are expected to be low and essentially immeasurable.

Fisheries

The Preferred Alternative would widen the cross-section of the bridge over the Snake River. Although a structure selection and detailed structural design has not been initiated, WYDOT would attempt to place the intermediate supports, or piers, on the stream banks rather than in the main channel. However, due to the topography, and the nature of the channel, pier locations may be placed within the limits of the ordinary high water mark.

At the Snake River crossing, work within the channel may be required, including excavation, pile driving and/or bank stabilization. This would result in some short-term increases in turbidity levels or the temporary loss of usable habitat. However, the long-term effects of this work are not expected to impact fish populations. The impacts associated with the structure work are expected to remain near the area of construction, although sediment impacts could reach downstream.

Potential impacts on fisheries from the Preferred Alternative would include:

- Sedimentation from construction activity.
- Potential oil/gas contamination from equipment working near the river and/or spills within the study area.
- Minor channel modification at the bridge abutments.
- Loss of riparian or wetland vegetation at the bridge abutments.
- Long-term increase in runoff from an increased area of impervious surfaces.
- Long-term increase in sediment loads from increased sanding/graveling of the highway during winter months.
- Introduction of contaminants, such as petroleum products from the highway during runoff events.
- Stochastic events, such as a traffic accident which leads to stream impacts.

Sedimentation

Factors influencing sediment transport to a stream or sedimentation include soil type and condition; slope or topography; magnitude, intensity, duration, distribution, and season of rainfall; vegetal cover; surface erosion; and bank cutting. Sediment that does reach the rivers would be transported downstream, and the distance that it travels would be influenced by a number of factors, including gradient, flow velocity, turbulence, and channel condition.

Because the Preferred Alternative may include bridge piers in the river, the amount of sediment transported or deposited in the river may be greater as the sediment load would include re-suspension of existing sediment in the water column from the river bed. Bridge construction may also generate additional sediment along the river banks at the bridge abutments and retaining walls, if needed. Project-related sediment that does enter the river (e.g., washing in during a precipitation event) would travel downstream due to the volume and velocity of water in the Snake River.

Sediment from the construction site entering the Snake River would depend primarily on the effectiveness of erosion control practices, proximity of exposed soils to the water, and weather conditions such as precipitation and wind. Heavy rains and winds during construction would result in a worse-case scenario in terms of sediment washing into the river. Bridge construction that includes in-stream work would generate additional sediment by stirring up the river bottom and re-suspending existing sediment in the water column.

Sedimentation has been shown to be detrimental to trout by filling the interstitial spaces in the gravel stream bottoms where eggs are laid and thus cutting off oxygen supplies to the eggs. High levels of sediment are also detrimental to juvenile trout growth and survival. The Snake River in or downstream of the study area is not a known spawning area for trout. Typically, juvenile trout will rear for one to two years in the spawning streams before migrating downstream as sub-adults. Sedimentation from the Preferred Alternative would not affect spawning trout or rearing juveniles. Generally, adult migratory trout in the Snake River are subject to high sediment loads annually during spring runoff or other runoff events. Sediment from the Preferred Alternative would not affect adult trout or migration to the spawning streams.

Sedimentation from the Preferred Alternative has the potential to indirectly affect trout in the Snake River by reducing food availability if it adversely affects invertebrate or fish prey supplies. Juvenile cutthroat are typically planktivorous and insectivorous. As they mature, they generally move downstream and continue to be insectivorous; however, some larger cutthroats may include small fish in their diet. The trout population inhabiting the Snake River downstream of the study area is adult and sub-adult fluvial (river) fish. While it is unknown, it is assumed that invertebrates in the Snake River are abundant as evidenced by the abundance of trout in the river system (Class 1 fishery). The Snake River carries large volumes of sediment during the spring runoff (approximately May through July). Resident fish and invertebrates in the river are subjected to these sediment loads on an annual basis. Temporary or periodic sediment loads from the highway construction are not expected to affect trout prey availability. Once the construction is complete and successful reclamation of disturbed areas has occurred, sediment from the construction area would be greatly reduced.

Chemical Contamination

Construction near the river may result in oil/gas from construction equipment directly entering the water either from equipment working in the stream or as a result of a spill or accident. Oil and gas contamination, as with sediment, has the potential to affect the downstream aquatic

ecosystems and may affect prey availability for fish in and downstream of the study area. Petroleum products have been shown to be toxic to trout and aquatic invertebrates in varying concentrations and conditions. In general, the potential for this type of impact occurring is expected to be minimal provided good BMPs are observed during all construction in or near the river.

Channel Modification

Replacement of the bridge has the potential to modify the river channel through adjustments of the river banks, installation of riprap to prevent erosion, and changes in bridge pier shape and/or placement.

Foundations (abutments and piers) would be placed parallel with the direction of the stream flow at flood stage. When practical, intermediate supports, or piers, would be placed on the stream banks outside of the ordinary highwater, rather than in the main channel. When possible, the number of piers will be minimized to provide a more effective flow of water beneath the bridge and to minimize the temporary construction impacts to the stream.

Loss of Riparian or Wetland Vegetation

The widened bridge at the Snake River crossing would result in some loss of river fringe vegetation at this location. Wetland impacts are discussed in Section 3.13, Waters of the U.S., Including Wetlands. Functions of fringe wetlands and riparian areas include riverbank stabilization and sediment storage. Most of the existing highway in the study area does not closely parallel the Snake River so there would be minimal removal of wetlands and riparian vegetation from the highway construction. However, the new bridge would result in minor loss of some wetland and riparian vegetation. Loss of streamside vegetation may affect trout and other fish by increasing runoff and sedimentation potential and by reduction of large woody debris recruitment in trout habitat. Under current conditions, riparian vegetation within the study area are insignificant sources of large woody debris for the Snake River system, and the Preferred Alternative would not impact large woody debris recruitment. Provided riparian and wetland areas impacted by bridge construction are reclaimed to pre-project conditions, the Preferred Alternative would have minimal long-term impacts on increased runoff and sedimentation potential from loss of riparian/wetland vegetation. In general, the potential impacts from vegetation loss would be minor and only affect vegetation near the bridge abutments.

Runoff

The Preferred Alternative would increase the area impervious to water over current conditions and runoff from the highway would increase. The amount of runoff from the highway reaching the river is subject to topographic and vegetative features, but it can be expected to increase as a result of the Preferred Alternative. The overall net result would be increase flows in the Snake River, although it is expected that this would be periodic, immeasurable given the volume of water in the river, and negligible over the long term.

Because the existing highway crosses the Snake River, it is likely that some petroleum products associated with vehicular traffic on the highway enter the river, and increases in traffic on the highway may cause future contaminant levels to rise. Concentrations of highway pollutants are considered significant on roads where Annual Average Daily Traffic (AADT) counts exceed 30,000 (FHWA 1981). This level of traffic is five times greater than the projected AADT for the Hoback Junction study area of 6,000 for 2026. Concentrations of these pollutants in the study area are expected to remain insignificant unless traffic levels substantially increase.

Accidents

As with the No-Action Alternative, the overall increase in traffic on the road may increase the potential for traffic accidents. In the event of an accident occurring on or near the bridge, river contamination may occur. Additionally, during the construction period, there is the potential for an oil/gas spill or accident from construction equipment entering the river. This indirect effect is considered immeasurable and the increase in highway safety would help offset the potential for this type of event affecting fish populations in the Snake River.

3.17.6 Avoidance and Minimization Measures

The following measures would be employed to avoid or minimize potential impacts to wildlife or fisheries resources:

- WYDOT would coordinate with the USFS, WGFD, USFWS, and USACE throughout project development, design, and construction phases so that appropriate measures to minimize and mitigate impacts are implemented and so that any unforeseen impacts or circumstances are addressed.
- A retaining wall would be built along the southwest side of the bridge to reduce impacts on the Snake River.
- Foundations (abutments and piers) would be placed parallel with the direction of the stream flow at flood stage. When practical, intermediate supports, or piers, would be placed on the stream banks outside of the ordinary high water, rather than in the main channel and minimize the creation of hydraulic eddies and alterations of downstream flows.

3.17.7 Mitigation

The following measures would be employed to mitigate potential adverse impacts to wildlife and fisheries resources.

3.17.7.1 Vegetation

A revegetation plan would be developed through coordination with the USFS, WGFD, and USACE for use in the highway corridor, temporary construction permit areas, and other areas disturbed during construction. Specific objectives of the revegetation plan would be identified, such as blending the reclamation vegetation with existing vegetation; use of native species similar to existing vegetation; and minimizing the spread of noxious and invasive weeds.

The revegetation plan should include, but not be limited to, methods for topsoil salvage, depth of topsoil salvage, stockpiling, and placement; seeding and planting mixes, timing, and application rates; types and application rates for fertilizer and mulch; success monitoring specifications; noxious weed control methods, including the identification of problem areas, equipment cleaning; and landscaping techniques, such as varied slopes, rough surfaces, terraces, and irregular forest edges.

3.17.7.2 Threatened and Endangered Species

The USFWS believes the proposed project will not adversely affect the bald eagle based on the distance from the project and the demonstrated tolerance to disturbance by the nesting Hoback pair. On March 29, 2007 the USFWS announced that the Yellowstone Distinct Population Segment of grizzly bears is a recovered population. The no effect determination for Canada lynx and no jeopardy determination for Gray wolf do not require concurrence from the USFWS. See letter from the USFWS dated July 11, 2007 in Appendix C.

Wildlife

During the final design phase, WYDOT would also investigate the feasibility for providing wildlife passage adjacent to both abutments under the reconstructed Snake River bridge.

Fisheries

WYDOT would incorporate BMP into the design to help mitigate impacts to fisheries. It would obtain a National Pollution Discharge Elimination System (NPDES) permit that would contain and contract provisions for construction areas to minimize construction sedimentation effects until the construction is complete and disturbed areas are successfully reclaimed. Also, with implementation of BMPs and compliance with the NPDES permit, the potential for chemical contamination from construction would be low.

- In-stream construction at the bridge and retaining wall locations, if needed, will be controlled so that fish passage is maintained. WYDOT would coordinate with the WGFD on these activities.

- The impacts associated with the bridge and retaining wall work are expected to remain within close proximity of the area of construction. WYDOT will utilize proper sedimentation and control measures to include techniques such as silt fence and geotextile, non-earthen cofferdam, hay bales and temporary sediment basins to control impacts to fisheries.

- Construction standards and safety precautions that follow approved BMPs and design criteria would be employed to minimize the potential for an accidental spill or discharge of any chemical or petroleum product that may be hazardous to fish and wildlife.

- Construction equipment fueling and servicing areas would have appropriate pollution prevention measures and would be located a minimum of 300 feet away from surface water, riparian zones and/or slopes that lead directly to water, riparian, or aquatic habitat.

- Sediment-reduction practices would be applied within all construction areas to minimize excessive sedimentation and reduction of aquatic and fisheries habitat quality.

3.18 Vegetation

3.18.1 Affected Environment

General vegetation types (land cover types) have been mapped for the state of Wyoming as part of the Gap Analysis Project (GAP), a GIS database describing vegetation types for the entire state at a scale of 1:100,000. The GAP project serves as the basis for the description of vegetation in the study area. Information on special status plant species was obtained from the USFWS, the BTNF, and the Wyoming Natural Diversity Database (WYNDD). Teton County Weed and Pest was contacted for information on noxious weeds. Field reconnaissance surveys were also conducted in August 2002.

The ecoregion of the study area is classified as the Southern Rocky Mountain Steppe-Open Woodland-Coniferous Forest-Alpine Meadow Province, Overthrust Mountain Section (McNab and Avers 1994). The pattern of vegetation across the landscape in the study area is largely influenced by climate, topography, elevation, aspect, and soils. The continental climate results in relatively dry conditions with brief summers and long and cold winters. The average annual precipitation in the area is approximately 15 inches. North-facing slopes are typically cooler and more mesic than the warmer and drier south-facing slopes. The topography grades from the valley floor at an elevation of approximately 6,000 feet to steep slopes with peaks at elevations over 7,000 feet.

The GAP project identified general vegetation types surrounding the study area (see **Figure 3-16**), mountain big sagebrush. Some aspen type occurs south of the Hoback River east of the proposed action but not within the study area.

- **Mountain Big Sagebrush:** Shrub type dominated by mountain big sagebrush (*Artemesia tridentata ssp. vaseyana*), often mixed with grasses. Mountain sagebrush is the dominant shrub, and total shrub cover comprises more than 25 percent of the total vegetative cover. Mountain sagebrush sometimes occurs as patches of dense sagebrush within patches of mixed grasses. This is the predominant vegetation type in the study area, found on dry upland areas both on the valley floor and on some of the slopes. This is the most common vegetation type immediately adjacent to the highway.

- **Aspen:** forests in which aspen (*Populus tremuloides*) dominate the canopy. This type includes pure aspen forest and mixed conifer/aspen forest where aspen occupies more than 50 percent of the total canopy. The total canopy cover by trees is greater than 25 percent. This type is found along the Hoback River east of the study area along U.S. Highway 189/191.

Figure 3-16
Vegetation Types

Source: Wyoming GAP Analysis Project (WY GAP), 1996

3.18.1.1 Sensitive Species

The USFWS, BTNF, and WYNDD were contacted for information on sensitive plant species in the study area. The USFWS did not include any federally listed plant species in the list of threatened or endangered species potentially occurring in the study area (USFWS letter September 18, 2006). However, the threatened Ute ladies'-tresses orchid (*Spiranthes diluvialis*) is known to occur downstream on the Snake River in Idaho, and a survey was conducted for this species in the study area in August 2001 (WEST Inc. 2002); no individuals were located. Additionally, a survey was conducted on BLM-managed lands along the Snake River in 1999, but no individuals were located (Jones 2000).

The USFS maintains a list of 18 sensitive plant species that occur in the BTNF (USFS 1998); however, most of these species occur in vegetation or specialized habitats, such as high alpine habitats, that are not found in the study area. Two species potentially occur in mountain big sagebrush vegetation found in the study area (see **Table 3-19**), one of which, the large-flower clarkia (*Clarkia pulchella*), has been documented within the study area townships.

Table 3-19
Sensitive Plant Species Potentially Occurring in the Study Area

Species	Habitat	Occurrence
Soft aster (Aster mollis)	Sagebrush grasslands and mountain meadows in calcareous soils. 6,400 to 8,500 feet elevation.	No records in the WYNDD database for the study area townships. Has been observed in Hoback Canyon (Fertig et al. 1994).
Large-flower clarkia (Clarkia pulchella)	Dry forests, usually at margins or in openings in grassland, sagebrush or open habitats.	Single historic collection record from study area township.

Source: WYNDD database search results (search conducted August 2002) and BTNF Sensitive Plant Species list dated December 16, 1998.

3.18.1.2 Noxious Weeds

Both the federal and state governments have regulations concerning noxious weeds. Executive Order 13112, signed in February 1999, requires federal agencies whose actions may affect the status of invasive species to prevent the introduction of invasive species, detect and control populations of such species, monitor invasive species populations, and restore native species and habitats that have been invaded to the extent practical and permitted by law. In addition, the USFS Manual (*National Policy: FSM 2080*) provides guidance to the USFS in prevention and control measures for noxious weeds. At the state level, the Wyoming Weed and Pest Control Act, 1973, establishes each Wyoming county as a Weed and Pest Control District to address specific weed or pest concerns in each county.

Teton County was contacted to identify known noxious weed concerns in and near the study area (see **Table 3-20**). Spotted knapweed and houndstongue were mentioned as of particular concern due to widespread distribution. WYDOT currently contracts with Teton County for weed control in the study area. The primary method of weed control used in this area is chemical herbicide.

Table 3-20
Noxious and Invasive Species Found in the Study Area

Common Name	Scientific Name	Description
Black henbane	*Hyoscyamus niger*	Annual or biennial up to 3 feet tall. Common weed of pastures, fencerows, roadsides and waste areas.
Bull thistle	*Cirsium vulgare*	Biennial, reproduces by seed. Highly competitive in disturbed sites.
Canada thistle	*Cirsium arvense*	Colony-forming perennial from deep and extensive roots. Aggressive weed; reproduces asexually.

continued

Table 3-20 (cont'd.)
Noxious and Invasive Species Found in the Study Area

Common Name	Scientific Name	Description
Common mullein	*Verbascum thapsus*	Large biennial, produces a large number of seeds. Occurs along river bottoms, pastures, meadows, fence rows, and waste areas.
Common tansy	*Tanacetum vulgare*	Perennial; reproduces by seed and rootstocks. Found along roadsides, waste areas, streambanks, and pastures.
Dalmation toadflax	*Linaria dalmatica*	Perennial up to 3 feet tall, reproducing by seed and rootstocks. Aggressive; found along roadsides and rangeland.
Dyer's woad	*Isatis tinctoria*	Tap-rooted annual to perennial; regenerate from the root. Found along roadsides and disturbed sites.
Field bindweed	*Convolvulus arvensis*	Perennial with an extensive root system found in fields and waste areas. Roots can penetrate to a depth of 20 feet. Seeds remain viable for up to 50 years.
Houndstongue	*Cynoglossum officinale*	Biennial up to 4 ft tall with prickly fruits. Found in ranges and pastures.
Musk thistle	*Carduus nutans*	Biennial up to 6 feet tall. Spreads rapidly forming extremely dense stands that crowd out desirable forage in pastures, rangeland, forests, and grain fields; is also found along roadsides, waste areas, ditch banks, and streambanks
Scotch thistle	*Onopordum acanthium*	Biennial up to 12 feet tall. Aggressive plant that may form dense stands along waste areas and roadsides.
Spotted knapweed	*Centaurea maculosa*	Biennial that spreads by seed and can increase rapidly in just a few years. Readily establishes on disturbed soil, and early spring growth makes them competitive for soil moisture and nutrients.
Sulfur cinquefoil	*Potentilla recta*	Perennial with well-developed root stocks. Found in disturbed sites.
White top	*Cardaria draba*	Deep-rooted perennial, re-producing from root segments and seeds. Common on alkaline, disturbed soils. Highly competitive once established.
Yellow toadflax	*Linaria vulgaris*	Perennial up to 2 feet tall, reproducing by seed and root stocks. Aggressive invader of rangeland, and along road-sides, waste places, and cultivated fields.

3.18.2 Impacts

This section discusses the potential impacts to vegetation types, including threatened and endangered species, and noxious weeds, potentially affected by the Preferred Alternative.

3.18.2.1 Methods

Impacts to vegetation types were assessed quantitatively, using the GAP Analysis mapping and the same assumptions used to assess wildlife habitat (see Section 3.17.5, Impacts).

Impacts due to noxious and invasive plant species were assessed qualitatively. It is difficult to assess the impacts of these species quantitatively because of the large number of variables that could affect the establishment and spread of noxious weeds. Therefore, literature and expert opinion were reviewed to help determine the potential impacts due to noxious and invasive plant species.

Impacts to vegetation include:

- Loss of vegetation types (long term and short term).
- Potential loss of sensitive species.
- Potential increase in noxious and invasive plant species.

3.18.2.2 Loss of Vegetation Types

Long-term impacts to vegetation include conversion of native vegetation to pavement or other permanent features (e.g., bridge, pathway). Short-term impacts include the disturbance of areas due to construction activities, such as vegetation and topsoil removal to construct the road and slope. These areas typically would recover over time and provide similar vegetation types to that prior to construction.

3.18.2.3 Sensitive Species

If a listed species is present within the proposed roadbed, then that individual plant is in jeopardy of being destroyed. The impact of the loss of an individual plant or a small population to a species is dependent upon the rarity and distribution range for that species. As mentioned in Section 3.18.1.1, Sensitive Species, a survey was conducted to locate any Ute ladies'- tresses orchid, the only federally listed species with the potential to occur in the study area; no individuals were found (WEST Inc. 2002).

3.18.2.4 Noxious and Invasive Plant Species

Most noxious and invasive species are aggressive pioneers that have a strong competitive advantage over other species on disturbed sites. Additionally, disturbance to seed banks where these species exist can greatly increase seedling establishment creating a potential outbreak in areas that are being reclaimed. Therefore, all areas disturbed by the Preferred Alternative are potential habitat for these species, particularly for spotted knapweed and houndstongue, which occur in study area. Severity of impacts depends on the species, degree of invasion, and control measures employed. Adverse impacts from noxious and invasive species include:

- Loss of wildlife habitat.
- Displacement of special status species.
- Alteration of wetland and riparian functions.
- Reduction in livestock forage and crop production.
- Displacement of native plant species.
- Reduction in plant diversity.
- Change in plant community functions.
- Increased soil erosion and sedimentation.
- Reduction in recreational value and use.
- Reduction in land value.

Mitigation measures can be implemented to reduce potential impacts resulting from noxious and invasive plant species.

3.18.2.5 No-Action Alternative

Under the No-Action Alternative, the existing vegetation types adjacent to the highway would likely remain similar to the existing condition. Regular maintenance activities in this corridor, such as mowing and weed control, would continue. Noxious and invasive species would continue to be of concern due to occasional disturbances, such as landslides, or the introduction of new species.

3.18.2.6 Preferred Alternative

The primary area of interest in regards to vegetation is the small area of Mountain Big Sagebrush (as identified by GAP Analysis). Approximately 2.5 acres of Mountain Big Sagebrush would be disturbed by the Preferred Alternative.

Loss of Vegetation

Impacts to vegetation would be minimal. Most of the Hoback Junction study area traverses an area considered a rural subdivision. The only native vegetation that would be affected is located on the west side of the Snake River (near MP 140.7). The Preferred Alternative would impact approximately 2.5 acres of this vegetation type. The different design options would not affect vegetation.

Sensitive Species

A survey along the study area was conducted for Ute ladies'- tresses orchid in 2002. The area surveyed was 300 feet on either side of the highway center line. No individuals were located during the survey efforts. No potential habitat was identified for the Hoback Junction study area. Mountain Big Sagebrush is potential habitat for soft aster, a BTNF sensitive plant. No records of this species in the study area were found, and the Preferred Alternative would not impact the Ute ladies'- tresses orchid or sensitive plant species of the area.

Noxious and Invasive Plant Species

There are no known areas of concern due to noxious or invasive species within the study area. Spotted knapweed and houndstongue likely occur in the study area because of their widespread occurrence along both highway corridors. Due to ground disturbance there is potential for noxious and invasive species to establish. Based on the limited ground disturbance associated with the Preferred Alternative and application of mitigation measures, potential establishment would be minimal.

3.18.3 Mitigation

The following mitigation measures will be implemented during project construction to minimize impacts to vegetation:

- Reclaim disturbed ground with a seed mix composed of native species appropriate to site conditions, as developed by the WYDOT agronomist in consultation with the Bridger Teton National Forest.

- Require all equipment brought into Teton County for use in the project area be washed prior to entering the county to minimize the potential for transporting weed seeds into the project area.
- All seed, straw, erosion control blankets, mulches, or hay used on the project will be free of noxious weeds as required by WYDOT standard specifications, State seed law, and Wyoming Department of Agriculture Certification Program.

3.19 Cultural Resources

Cultural resources are protected under the National Historic Preservation Act of 1966 (as amended 1992) and other statutes, plus Section 4(f) as amended and codified in the U.S. Department of Transportation Act of 1966, 49 USC 303 (c). For the purposes of this EA, cultural resources include prehistoric and historic archaeological remains and historic resources.

3.19.1 Affected Environment

Compared to other parts of Wyoming, the Hoback River and Snake River canyons have received little formal archaeological investigation in the past. Consequently, there are few known archaeological sites in the area. A file search was conducted of the State Historic Preservation Officer (SHPO) Cultural Records Office database in Laramie, Wyoming, on August 2, 2001. The search was conducted for the original study area for the Hoback Junction DEIS (see Section 1.2, Background and Regional Setting). The results of the file search indicated that 26 accessioned surveys and 10 sites had been recorded in or near the study area. Of the 10 sites previously recorded in the study area, none are eligible for listing on the National Register of Historic Places (NRHP) (see **Table 3-21**). Of these sites, only one occurs within the study area. Site 48TE1934 is the bridge over the Snake River. The remainder of the previously recorded sites is not included in this evaluation of existing conditions.

Table 3-21
Previously Recorded Cultural Resource Sites Ineligible for the NRHP

Project Type	Site No.
Road Corridor	48TE382, 48TE416
Truss bridge survey	48TE1034, 48TE1194, 48TE973
Quarry	48TE1195
Maintenance site	48TE1290
WYDOT turnaround	48TE1376
WYDOT highway	48TE1338
Gravel pit	48TE1443

Source: *A Class III Cultural Resource Survey, Hoback Junction Projects*, WYDOT Projects NHS-010-4(6)(65), NHS-010-4(66), NHS-013-3(5), Teton County Wyoming, June 2002

A Class III Cultural Resource Survey, Hoback Junction Projects, June 2002, was conducted to identify archaeological or historical sites in and around the study area and to evaluate their potential for NRHP listing. The Office of the Wyoming State Archaeologist performed a Class

III Cultural Resource survey in August and September, 2001. The survey covered a 600-foot-wide corridor along the existing highways. Only one new site was recorded. 48TE1571 is the Hoback River Resort determined ineligible to the National Register of Historic Places.

Based upon the records and literature search and the class III cultural resource survey, two sites occur within the area of potential effects (see **Table 3-22**). WYDOT determined that these sites are not eligible to the National Register of Historic Places on July 5, 2002 and received concurrence from SHPO on August 5, 2002 (see **Appendix C**).

Table 3-22
Sites in the Study Area Evaluated for Eligibility to the National Register of Historic Places

Site Number	Site	Type	Previously Recorded?	NRHP Eligibility Determination
48TE1571	Hoback River Resort	Historic	No	Not Eligible
48TE1034	Snake River Bridge	Historic	Yes	Not Eligible

3.19.2 Impacts

No cultural resources on or eligible for listing on the NRHP are present in the study area. Therefore, no impacts are anticipated.

3.19.2.1 Native American Consultation

On February 25, 2004, WYDOT sent letters to the Shoshone-Bannock Tribal Council and the Eastern Shoshone Business Council to solicit their input regarding cultural resources, places of traditional spiritual and religious significance that may be near the study area, the Game Creek site (48TE1573) which is outside of the study area, and other issues which may be of concern. No comment was received. Additional field consultation occurred with the Eastern Shoshone Tribe on May 11, 2004. No concerns were identified in the study area at that time.

3.19.3 Mitigation

No cultural resources are present in the study area; therefore, no mitigation is necessary.

3.20 Hazardous Materials

3.20.1 Affected Environment

A Phase I Environmental Site Assessment (ESA) was conducted to evaluate the potential of encountering soil and/or groundwater contamination within the study area (Carter & Burgess 2006). The assessment was based on information obtained from an environmental records review, historical aerial photograph interpretation, and visual site reconnaissance.

The original Phase I ESA Report was prepared in September 2001. According to Standard Practice E1527-00, a prior environmental assessment should not be used without a current investigation of conditions likely to affect *recognized environmental conditions* in connection with the subject property that may have changed since the prior environmental assessment was

performed. To meet these requirements, updated environmental database records were obtained and reviewed and the study area was reinspected.

A Phase I ESA is completed to detect the presence of hazardous materials or recognized environmental conditions in the project area. The term "recognized environmental conditions" is defined as the presence or likely presence of hazardous materials or petroleum products on a property under conditions that indicate an existing or past release.

The Phase I ESA included:

- An overview of the study area and a summary of site background information.
- A description of the environmental setting of the study area, including site topography, drainage, flood potential, surface water, hydrogeology, and utilization of groundwater.
- Results of the site reconnaissance, including a visual inspection for indications of soil, groundwater, and surface water contamination and other hazards, and an evaluation of the environmental condition of the areas surrounding the study area.
- A review of federal, state, and local environmental regulatory records.
- Conclusion and recommendations.

3.20.1.1 Background Research

Current Ownership

Research into the ownership of property was conducted to ascertain information about hazardous materials being used or stored on site. There are no owners known to be associated with the generation, use, storage, or transport of potentially hazardous materials or wastes in connection with the subject properties in the study area.

Review of Aerial Photographs

Historical aerial photographs of the study area from 1962 were reviewed. Based on review of the aerial photographs, the study area and surrounding properties have historically been comprised of undeveloped, agricultural, and some residential land. There is one fueling facility located at Hoback Junction.

Historical topographic maps from 1963 and 1965 were reviewed. Based on review of these maps, the topography appears to be historically unchanged. The existing topography is described in the following sections.

3.20.1.2 Site Reconnaissance

An area reconnaissance of the study area was conducted on August 29, 2001, and May 10 and 11, 2006. The study area inspection included:

- Visual inspection of the ground surface for signs of contamination.
- Inspection for other items of environmental concern.
- Evaluation of the environmental condition of adjacent properties.

The area reconnaissance did not reveal any obvious indications in the study area of aboveground or underground storage tanks (ASTs/USTs), landfills, fill piles, wells, or pipelines, other than the one gas station at Hoback Junction. No stained soils, distressed vegetation or other indications of contamination were observed in the study area. Also, no regulated or hazardous materials were observed.

The site reconnaissance revealed several commercial and residential properties that are not expected to be environmental risks because they are not within the anticipated limits of construction. One gas station is located at Hoback Junction immediately north of the intersection. The gas stations are not listed in any of the environmental databases searched (see next section).

3.20.1.3 Regulatory and Governmental Agencies Research—May 2006

An environmental database search of federal and state listed hazardous materials locations was conducted in coordination with Environmental Data Resources, Inc. (EDR), the results of which are included in the *Update to the Phase I Environmental Site Assessment* report dated May 2006.

A review of environmental regulatory records did not identify any properties within the study area that has faced, or is currently facing, regulatory actions, fines, or violations.

3.20.2 Impacts

Based on the results of the Phase I ESA, there is believed to be little or no potential of encountering contaminated soil and groundwater within the study area.

3.20.3 Mitigation

WYDOT would include containment and mitigation measures for hazardous materials, in accordance with WYDOT standard practice. If lead-based paint is found on the bridge or other structures on the project that require demolition or renovation, measures would be taken to prevent the release of lead-based paint to the environment.

3.21 Visual Character

3.21.1 Affected Environment

The study area is located at the western edge of the Gros Ventre Range and within the southern portion of the BTNF. Portions of the land adjacent to the study area that are not a part of the BTNF include private residential and commercial lands of unincorporated Teton County and other uses. The study area is located south of the Teton Mountain Range.

The *Land and Resource Management Plan* (LRMP) for the BTNF (1990 and as amended) was used as a guideline in preparing the visual assessment. The *Wyoming Centennial Scenic Byway: Scenic Byway Corridor Management Plan* (Scenic Byway Plan), February 1999, was referenced for compliance to scenic byway prescriptions for U.S. Highway 89/191.

3.21.1.1 Landscape Character and View sheds

Landscape character can be broken down into landscape units containing similar landscape elements that are different from other distinct areas. The physical elements of a landscape form the visual patterns that strongly influence our response to the landscape. The physical elements include landform and vegetation, water and wildlife features, and other man-made modifications, such as residential and commercial development. Foreground landscape units are those immediately visible from the highway and define the local character of the area. The foreground is defined as the area within 0 to 0.5 mile. The middleground is defined as 0.5 mile to 4 miles. The background views are 4 miles or greater and include the Snake River and Teton Mountain Ranges.

The visual landscape units within the study area are defined as:

Valleys: Grassland and Meadows. Vegetation in valley areas consists of sagebrush-steppe community in the wider valleys west of Hoback Canyon. These areas are open, flat to rolling terrain, and often adjacent to the river. Many of these areas provide a wide view shed that enhances the scenic quality.

Mountains: Coniferous and Deciduous Forest and Rock Walls. The Hoback Junction area is within the canyon separating the Teton and Gros Ventre ranges. Steep slopes and flatter terrain along the Snake River characterize this area.

Rural Residential, Commercial, and Other Development. The scenic beauty and natural resources of the Hoback and Snake River Canyons make Hoback Junction especially important as a true "gateway" community to the valley. Residential and commercial developments are present at Hoback Junction. This development includes elements common to human use, such as signage, varying architectural styles and materials, utility lines, driveways and parking areas, and conveniences such as mailboxes.


Hoback Junction commercial development

The highway is a dominant feature in the view shed for much of the study area. Existing cut and fill slopes are visible to the motorist and other corridor users. Revegetation has occurred in many areas, with some steeper areas remaining as impacted.

Water and Wildlife Resources: The Snake and Hoback Rivers follow the roadways within the study area. Both rivers are eligible to be designated as Wild and Scenic rivers, and are classified as Recreational Rivers to be protected under the USFS' 1990 *LRMP* standards (see Section 3.15, Wild and Scenic Rivers). The quality of the visual resource was a major factor in the decision to submit the rivers for consideration. The waterways are both an aesthetic and functional asset as an aquatic and wildlife habitat. Riparian communities occur along the drainages.


Snake River south of Hoback Junction

The presence of wildlife adds to the scenic beauty and popularity by tourists and residents alike. Much of the surrounding area is considered habitat for numerous wildlife species. Refer to Section 3.17, Wildlife and Fisheries, for wildlife habitat range descriptions.

View sheds to the highway corridors and structures are possible from adjacent residential and commercial development along the highways. Other vantage points include lands in the BTNF used by hikers and recreationists, and by river users on the Hoback and Snake Rivers. Much of the foreground and middleground along the highway reflects landscape character that is typical of a rural mountain corridor. Middleground views of the natural-appearing landscape are of the wider valleys. These features are encompassed by large expanses of native vegetation consisting mostly of low grasses, forbs, and shrubs. Background views are of the Gros Ventre and Teton Mountain Ranges and are often confined to the narrow mountainous canyon, rock outcroppings, and dense tree stands surrounding the Hoback and Snake Rivers.


South view toward Hoback Junction

3.21.1.2 Visual Quality Objectives

3.21.1.3

The *LRMP* identifies visual quality objectives (VQO) for each Management Prescription Area or Desired Future Condition (DFC) for BTNF lands. Any alternatives planned for construction in the BTNF must set a goal to meet the visual quality objectives. U.S. Highway 89/191 is a designated Scenic Byway in the *Bridger-Teton National Forest Management Plan*. This sensitive travel corridor must set a goal to meet the VQO standard of *retention* in the foreground and middleground. The *retention* VQO standard requires that the proposed action not be visible to

the average visitor, even if landscape-altering activities occur. This includes all National Forest lands that are visible from highways. Prescriptions areas located within or near the study area are described in Section 3.1, Land Use and Zoning, and shown on **Figure 3-2.**

The minimum standards for visual quality (*partial retention, retention,* etc.) describe the maximum degree of acceptable alteration (impact) of the natural landscape based on the importance of aesthetics to the management activity. The degree of alteration is measured in terms of visual contrast with the surrounding landscape.

- **2A Management Prescription Area:** Nonmotorized Recreation—*retention.*
- **3 Management Prescription Area:** River Recreation— *retention.* The LRMP standard for managing an eligible recreation river is to meet the VQO standard of *retention* within the river corridor (0.25 mile on either side of the river). They are managed to protect or enhance their wild, scenic, and recreational values. Development or activities which would diminish free-flowing characteristics, water quality, and scenic, recreational, fish and wildlife, and other values of eligible segments will be prohibited— *retention.*
- **12 Management Prescription Area:** Backcountry Big Game Hunting, Dispersed Recreation, and Wildlife Security Areas—*partial retention.*

Partial retention activities may introduce form, line, color, or texture, but they should remain subordinate to the visual strength of the landscape. Mitigation measures to meet *partial retention* should be accomplished as soon after construction completion as possible or at a minimum within the first year.

Retention activities are not evident and blend well with the natural landscape. Road construction may occur in this area but must be designed to appear natural and unnoticeable. This VQO is generally applied to areas that are in the foreground of sensitive viewing areas.

3.21.1.4 Wyoming Centennial Scenic Byway

The *Wyoming Centennial Scenic Byway Management Plan* (WCSB) identifies U.S. Highway 189/191 from Pinedale to Dubois (through Jackson) as a Scenic Byway. The route also has been designated as a State Scenic Byway.

WCSB Goals that pertain to visual quality:

- *The WCSB will enhance the visitor experience using interpretive and educational displays located throughout the corridor highlighting historic, scenic, natural, cultural, and recreational resources.*
- *Interpretive features will be developed to complement the scenic beauty, rich history, and cultural traditions of the corridor with information interpreting these resources as well as issues sensitive to communities along the corridor which impact their quality of life, environment, and safety.*

- *The natural resources associated with the WCSB corridor will be protected, and where necessary, enhanced and developed in a sustainable manner.*

Scenic byway designation does not create any additional restrictions on the development of private land. The scenic byway corridor, as it passes through private land, encompasses only the extent of the study area right-of-way. Private property development beyond the highway right-of-way remains under the jurisdiction of local governing entities. Through National Forest lands, the corridor width includes the view shed as seen from the highway.

To ensure that the scenic resources of the scenic byway corridor are maintained, federal and local governments have measures in place. It is the intent of the WCSB to incorporate and implement these existing plans for the study area. Depending on the agency and ownership, the appropriate regulations and laws would be applicable.

3.21.1.5 National Scenic Byways Program

Through the National Scenic Byways Program, the FHWA allocates discretionary funds to undertake eligible projects along highways designated as National Scenic Byways, All-American Roads, or as State-designated Scenic Byways. In determining eligibility for grants, the FHWA emphasizes the importance of the relationship of a proposed project, the byway, and its intrinsic qualities. Detailed selection criteria are defined in the FHWA's *National Scenic Byways Program Guidance for FY 2004 Grant Applications*.

3.21.2 Impacts

3.21.2.1 Methods

Methods to evaluate visual impacts included field documentation of the existing visual character; an inventory of land use; referencing existing community plans; and identifying important view sheds and areas of high scenic integrity for motorists, residents, and corridor users. The visual resources evaluated were not limited to elements or features that are of outstanding visual quality, but all features regardless of their quality. Viewer sensitivity or local values can add visual importance to landscape features and areas that could otherwise appear unexceptional (Aesthetics and Visual Quality Guidance Information, FHWA/USDOT, August 18, 1986).

The *FHWA Visual Impact Assessment for Highway Projects Manual* (FHWA-HI-88-054) and the *Land and Resource Management Plan (LRMP) for the BTNF* (1990) were used to develop methods to assess visual impacts. In addition, the *Wyoming Centennial Scenic Byway: Scenic Byway Corridor Management Plan* was referenced for compliance to scenic byway preservation. The BTNF Forest Supervisor and staff provided direction for the assessment consistent with *FSM, Chapter 2380, Landscape Management* which provides direction for USFS landscape management including aesthetics and scenery (letter dated March 16, 2006 from Forest Supervisor Carole "Kniffy" Hamilton to FHWA). Input from the white papers prepared by the USFS assessment workshop to evaluate the effects of the proposed action on the Hoback River, Snake River, and Grayback Roadless Area (S. Marsh and D. Martens, June 2006) has been incorporated into this assessment.

3.21.2.2 No-Action Alternative

The No-Action Alternative would not affect visual resources in the study area.

3.21.2.3 Preferred Alternative

The study area is located within BTNF LRMP Prescription Areas 3 and 12, which have a visual quality objective (VQO) of *retention* and *partial retention*, respectively.

The Preferred Alternative would include curb and gutter and sidewalks. This alternative would be based on a three-lane urban configuration for U.S. 89. The existing width of the bridge is 28 feet with two lanes; the new bridge would accommodate three 12-foot lanes, two 8-foot shoulders, and a 5-foot sidewalk, totaling 57 feet in width. The associated visual impacts would be wider bridge pier or abutments, more shading under the bridge (which can result in a wider unvegetated area), and wider bridge mass from a river user perspective.

A retaining wall or several tiered walls would be located at the southwestern end of the bridge over the Snake River. This wall or walls would measure approximately 1,200 feet long in total, with an average exposed height of 28 feet and a maximum exposed height of 35 to 50 feet. They would be visible from the Hoback River and Snake River. The Adjacent to Bridge Option would have impacts to scenic quality on the Snake and Hoback Rivers. The retaining wall would be visible but not intrusive on the foreground river environment (see Section 3.7, Parks and Recreation Resources). The retaining wall would also be visible from the adjacent properties. The retaining wall or walls would have a visual impact on river users but can be mitigated with appropriate color and texture to reduce scenic intrusion on the rivers. Because of the predominate pattern of existing development on adjacent private lands, this retaining wall would not result in an adverse effect to river users.

Design Options

With both the Do Minimum and the Combine Approaches and Increase Circulation Options, a wider roadway with curb and gutter would be constructed through the Junction that would create a more prominent paved area to serve local access. The visual impact would be associated with new pavement and roadway elements, such as lighting, signing, and vegetation clearing. This option would be similar to existing conditions.

With the Combine Approaches and Increase Circulation Option, a separation between the curb and gutter and the sidewalk would be constructed, with landscaping opportunities provided on either side of the sidewalk. The landscaping opportunities would provide an opportunity to enhance the visual character of the Hoback Junction area.

The roundabout would require a larger paved area than the "T" intersection, which would convert more adjacent land to paved roadway and may involve some vegetation clearing. However, the roundabout would provide an area for landscaping opportunities.

3.21.3 Mitigation

When revegetating impacted areas, WYDOT would use native trees, shrubs, and grasses. Species would be placed in appropriate sun exposure, soil and moisture conditions. Riparian vegetation would be planted at creek and wetland edges. Trees and shrubs would be grouped in patterns similar to those of existing conditions where applicable. Treatment area edges and boundaries would be kept irregular to maintain natural mosaic patterns.

WYDOT would identify trees and/or large shrubs in the clear zone to be removed to accommodate the new cross-section. To establish a natural appearing edge, trees would be randomly removed beyond the clearing line, and new tree and shrub plantings would vary in size and height. Where treatments abut densely forested areas, thinning would be transitioned from a dense canopy to a progressively more open forest to avoid a stark contrast along these edges.

Cut and fill slopes would be constructed to provide naturally appearing foreground views. Techniques include undulating finish grades, creating pockets for native shrubs and trees, studding with boulders as appropriate, and establishing large areas of native grass to reflect adjacent natural landscapes.

Reclamation of current roadway pavement would occur in locations with new alignment. Reclamation would include using native grass mixes and shrubs to blend with adjacent vegetation.

The length and use of retaining walls would be minimized, and retaining walls would be designed such that they blend into the environment. This would be accomplished by using colored and textured surfaces and transitioning the end slopes into the adjacent landforms. Areas below and above the walls would be revegetated as practical and feasible. WYDOT would coordinate the aesthetic treatment of the walls with the design advisory group during the final design phase.

WYDOT would coordinate with Teton County during final design to discuss implementation of design recommendations contained in the *Jackson/Teton County Comprehensive Plan*. The plan recommends limiting exterior colors to earth tones and controlling reflective surfaces and exterior lighting. It also recommends use of existing and supplementary native vegetation, planted in traditional patterns and of a scale capable of screening and softening structural mass; and discouraging major earth moving or building of berms to screen development or requiring such features to complement natural landforms. The retaining wall associated with the bridge construction that would be visible from the highway, the river and adjacent properties can be designed to be aesthetically acceptable with proper selection of color, material type, and texture.

During the final design, WYDOT would consider incorporation of measures identified in the *Wyoming Centennial Scenic Byway Plan*.

3.22 Construction

3.22.1 Impacts

No-Action

The No-Action Alternative would involve no additional construction over what is currently scheduled, approved, and funded. Therefore, the No-Action Alternative would result in no construction impacts beyond what is currently planned for the study area.

Preferred Alternative

The period of construction would most likely occur over two to three years and is scheduled to begin in the year 2010. Construction of the Preferred Alternative would result in short-term construction impacts during the construction period. The extent of these impacts would depend on the construction methods, which would be determined during the final design phase. However, highway construction generally would likely involve excavation, grading, paving, utility adjustments, and construction of retaining walls and some storm sewers. At the bridge location, bridge reconstruction, widening, and demolition would occur. Sequencing of construction packages and the overall timeframe of construction have not been finalized and would depend on minimizing construction impacts to residents and traffic, funding, and coordination with local communities.

Construction associated with the Preferred Alternative could impair travel mobility, increase traffic congestion, and temporarily restrict access to residences and businesses. Also, construction activities could increase dust, noise, runoff, and result in visual intrusions to motorists and residents. Construction would present the potential for exposure to, or accidental spill of, hazardous materials.

Air Quality

Without mitigation, excavation, grading, and fill activities could increase local fugitive dust emissions. Fugitive dust is airborne particulate matter, generally of a relatively large particulate size (greater than 100 microns in diameter). Because of the large size, these particles typically settle within 30 feet of their source. Smaller particles could travel as much as several hundred feet depending on wind speed. Vehicle emissions from construction vehicles and from delayed traffic also would impact air quality along the highways during construction activities.

Noise

Construction noise would present the potential for short-term impacts to receptors located in the study area. The primary source of construction noise is expected to be diesel-powered equipment, such as trucks and earth-moving equipment. Pile driving is expected to be the loudest single construction operation. Most noise receptors are located greater than 50 feet from areas where pile driving or other high-noise activities are expected. At this time, the substructure types are not known, but pile driving can be anticipated at the bridge location and possibly the retaining wall location.

Vibration

Vibration caused by construction activities would present the potential for short-term impacts in areas where pile driving and compaction equipment are being used. The potential for building damage from pile driving vibration is estimated to exist only within about 50 feet of pile driving activities. Vibration from compaction equipment is less severe. Since no buildings are located within 50 feet of these activities, no impacts are anticipated.

Water Quality

Stormwater runoff from a construction site presents the potential for violations of water quality standards in adjacent waterways and groundwater. Without BMPs, stormwater runoff could cause erosion, sedimentation, and transport of spilled fuels or other hazardous materials. These potential impacts are important due to the proximity of the study area to the Snake and Hoback Rivers. Section 3.12.3, Mitigation, provides details on measures to avoid, minimize, and mitigate water quality impacts during construction.

If unchecked, construction activities can lead to the deposition of eroded sediments within nearby waterways and water bodies. Without implementation of appropriate mitigation measures, short-term effects to surface waters (i.e., during and immediately following construction) would include:

- A temporary increase in turbidity and sedimentation during and immediately following nearby land disturbances.
- An increased risk of contamination associated with the presence of heavy equipment fluids (fuels, lubricants, etc.) and construction-related chemicals (paints and concrete additives).

The Preferred Alternative would require bridge construction. At this stage of project development, details such as location of piers and abutments have not been determined. However, WYDOT would comply with criteria set in WYDOT's *Standard Specifications for Road and Bridge Construction*, 2003.

Traffic

Construction delays are expected to create short-term impacts to local and regional traffic circulation and congestion. Delays to the traveling public and emergency service vehicles would occur. Reduced speed limits and temporary lane closures and delays would impair travel mobility.

Visual

Short-term construction-related visual impacts would occur. These impacts include the presence of construction equipment and materials, temporary barriers, guardrail, detour pavement and signs, temporary shoring and retaining walls, lighting for night construction, and removal of vegetative cover.

3.22.2 Mitigation

3.22.2.1 Air Quality

WYDOT's *Standard Specifications for Road and Bridge Construction,* 2003, requires contractors to provide and use methods to control air pollution (Section 111.4 Air Pollution Control). Construction impacts to air quality can be reduced by using dust suppression methods, such as water and/or commercial dust control agents. Particulate emissions in the form of fugitive dust are regulated by the Wyoming Department of Environmental Quality (DEQ).

3.22.2.2 Noise/Vibration

Mitigation for noise and vibration due to construction would conform to all local ordinances.

3.22.2.3 Water Quality

Contractors will be required to adhere to measures outlined in WYDOT's *Standard Specifications for Road and Bridge Construction,* 2003, to protect water quality during construction. These measures require implementation of a Storm Water Pollution Prevention Plan (SWPPP) in compliance with the National Pollution Discharge Elimination System. BMPs would be implemented to control sediment and prevent erosion. Existing vegetation would be maintained and preserved where practical, and all disturbed soils would be seeded and re-vegetated. Silt fences, as well as erosion bales and burlap bag curb, would be used to trap sediments and contain runoff and to protect from erosion.

3.22.2.4 Traffic Control

WYDOT will implement the following measures to minimize impacts to traffic circulation during construction:

- Develop traffic management plans.
- Maintain traffic flow during peak travel times by minimizing lane closures, if possible.
- Coordinate with emergency service providers to minimize delays and ensure access to properties.
- Use signage to announce/advertise timing of road closures.

3.23 Cumulative Effects

Cumulative impacts are defined as impacts which result from the incremental consequences of an action when added to other past, present, and reasonably foreseeable future actions:" (40 CFR 1508.7)

3.23.1 Reasonably Foreseeable Projects Within the Study Area

The Hoback North Segment is adjacent to and north of the Hoback Junction study area. Hoback North is scheduled for construction in 2012. This proposed project would improve 7.2 miles of US Highway 26/89/189/191.

The Hoback East Segment is adjacent to and east of the Hoback Junction study area. Hoback East is scheduled for construction in 2014. The proposed project would improve 2.9 miles of US Highway 189/191.

3.23.2 Wetlands

Impacts to wetlands in the watershed of concern began occurring with the construction of major water resource projects (e.g. Jackson Lake Dam in 1910) land and road development, agriculture, and grazing.

Wetland impacts from the Hoback North and East Segment projects are expected to be approximately 1.27 acres. Direct loss of wetlands from the Preferred Alternative is expected to be 0.32 acre. This small amount of wetland impact would be considered negligible relative to impacts from other reasonably foreseeable projects.

3.23.3 Community Character

Community character is the image of a community or area as defined by such factors as its built environment, natural features and open space elements, type of housing, architectural style, infrastructure, and the type and quality of public facilities and services. The 2002 Jackson/Teton County Comprehensive Plan describes community character as being "the most fundamental and pervasive growth and development issue facing Teton County".

The study area is rural and rural residential in character. There are no reasonably foreseeable projects that would notably alter this character. As discussed in Section 3.1, the Preferred Alternative is consistent with recommendations contained in the Teton County Charette Report to preserve and enhance community character at Hoback Junction.

3.23.4 Wild and Scenic Rivers

Improvements to Highway 26/89 through the Snake River Canyon east of Hoback Junction were completed in 2005. This section of the Snake River adjacent to the highway improvements has been nominated to eligible for designation as a Recreational River for a portion and for another portion as a Scenic River in the Bridger-Teton National Forest Plan.

The Hoback North segment project is not expected to have effects on the free-flowing character, the scenic quality Outstanding Remarkable Value (ORV), wildlife or recreation ORV of the Snake River. Bridges to be replaced are expected to have similar sized piers as those existing so that stream flows are unchanged. Landslide areas in this corridor requiring tieback retaining walls would be somewhat visible but not intrusive on the river. Some existing primitive road

access to the Snake River may be consolidated as parking/pull-off areas. Accommodation for wildlife crossings are expected to be included in the proposed project.

The Preferred Alternative will have a minor impact to visual quality from the addition of retaining walls. This small amount of visual impact would be considered negligible relative to impacts from other reasonably foreseeable projects. The potential for small changes to the free-flowing character and potential impacts to recreation and wildlife ORVs would be considered negligible relative to impacts from other reasonably foreseeable projects.

3.24 Permits Required

The following permits would or may be required for construction of the Preferred Alternative and would be obtained prior to construction:

- **Section 401 Water Quality Certificate**, issued by the Wyoming DEQ, is required for impacts to waterways. A Section 401 Water Quality Certificate is required in conjunction with an Individual 404 Permit (dredge and fill permit) for any transportation construction project or maintenance activity where work occurs below ordinary high water mark or adjacent to wetlands.

- **Section 402 Permit**, issued by the Wyoming DEQ, is required for dewatering of construction areas, if necessary. The following activities would require the acquisition of a 402 Permit:

  - Construction dewatering operations associated with activities, such as utility excavation, bridge pier installation, foundation or trench digging, or other subsurface activities.

  - If discharge is expected to occur from a point source discharge from mechanical wastewater treatment plants, vehicle washing, or industrial discharges.

- **Section 404 Permit**, issued by the USACE, is required whenever construction projects or maintenance activities requiring filling occur below the ordinary high water mark in any body of water considered a water of the U.S. (navigable waters of the U.S. and adjacent wetlands, all tributaries to navigable waters and adjacent wetlands, interstate waters and their tributaries and adjacent wetlands).

- **Wyoming Pollutant Discharge Elimination System (WYPDES) Permit**, issued by the Wyoming DEQ, Water Quality Division, is required prior to construction in accordance with Section 402 of the Clean Water Act. This stormwater discharge permit is required to assure the quality of stormwater runoff for surface disturbances of one or more acres associated with the construction of the project. A general permit has been established for this purpose. The process for receipt of coverage under the general permit depends upon the scale of the construction activities. Land disturbance of at least 1 acre but less than 5 acres falls under the provisions of the Small Construction General Permit; land disturbance of 5 acres or more falls under the provisions of the Large Construction General Permit. A Notice of Intent (NOI) to request coverage under the general stormwater permit must be submitted to the Wyoming DEQ, Water Quality Division for the Large Construction General Permit. The

level of coverage necessary for this project (Small or Large Construction General Permit) would be determined upon completion of the roadway design.

- **Storm Water Construction Permit**, authorized by the Wyoming DEQ. This is a State of Wyoming General Permit (Permit WYR10-0000) for stormwater discharges associated with large construction projects in accordance with Section 402 of the Clean Water Act.

- **Floodplain Development Permit**, issued by Teton County. All development permitted within the floodplain must comply with the Teton County Floodplain Management Resolution. A floodplain development permit is required for almost any development-related change to the floodplain, including, but not limited to, construction of new structures, modifications or improvements to existing structures, excavation, filling, paving, drilling, driving of piles, mining, dredging, land clearing, grading, or permanent storage of materials and/or equipment.

- **Conditional Letter of Map Revision**, issued by FEMA. If any changes will be made to the floodplain (area or elevation), a request is made to FEMA to issue a Conditional Letter of Map Revision. Once the project is completed, a request is made to FEMA to issue a Letter of Map Revision.

- **Migratory Bird Take Permit**, issued by the USFWS, is required if a migratory bird nest is affected.

- **Nest Take Permit**, issued by the USFWS if active nests are to be removed or if the nest is a raptor nest, active or not.

- **Fugitive Dust Permit** is required if more than 25 acres of land is impacted and/or project duration is longer than six months.

- **Construction Access Permits** are required for temporary access needs outside the construction project limits.

- **Construction Permits from Local Jurisdictions** may be required for the construction of WYDOT facilities.

- **Easements** required for construction, slope, and utilities.

  - Erosion Control/Grading Permits.

  - U.S. Forest Service Access or Right-of-Way Permit.

  - Other Local Permits, such as building, utility or survey permits, may be required to support project construction requirements.

Chapter 4.0 Comments and Coordination

4.1 Public and Agency Involvement Program

WYDOT has implemented an extensive public and agency involvement program to provide numerous opportunities for interested parties to participate in and contribute to the NEPA process. The intent was to solicit information, ideas, and opinions from the public.

The agency and public involvement activities discussed in this chapter occurred as part of the original Hoback Junction EIS process. Initially the project included three sections of highway: U.S. Highway 26/89/189/ 191, U.S. Highway 26/89, and a section of U.S. Highway 189/191 to the east. Thus, the public and agency comments received were for the three section EIS, but have been pared down in this chapter to focus on the comments specific to the Hoback Junction EA project area only.

4.2 Elements of Program

4.2.1 Notice of Intent

The Notice of Intent for the Hoback Junction EIS was published in the Federal Register on August 25, 2000 (see **Appendix B**).

In 2007, the Hoback Junction study area (US 26/89 from MP 141.4 to MP 140.7) was separated into a stand-alone project for which this EA was prepared. A Notice of Intent to modify the original project area for the Hoback Junction EIS will be published in the Federal Register.

4.2.2 Mailing List Development

A mailing list of 490 individuals and groups was compiled. Persons were continually added to the mailing list as comments were received throughout the EIS (now the EA) process. The mailing list is used for the distribution of newsletters, dissemination of project information, and notification of open houses.

4.2.3 Public Open House Meetings

The public open house meetings were held in an open house format that allows participants to have personal interaction with planners, engineers, Federal Highway Administration (FHWA), Wyoming Department of Transportation (WYDOT), and other project team members. It allows all individuals interested in the Hoback Junction project time to express their concerns and have questions answered. The open houses are designed to provide information to the general public and to obtain their input. Most meetings included formal presentations. Public open house meetings were held seven times prior to publication of this EA:

- **September 27, 2000,** 5:30 pm to 7:00 pm, at the Teton County Library in Jackson.
  - Public Scoping meeting.
  - Approximately 74 people attended.

- This meeting was held to obtain input on project issues, provide a description of the NEPA process, describe transportation needs, and obtain public input.

- **June 14, 2001**, 5:00 pm to 7:00 pm, at the Fire Station at Hoback Junction.
  - Approximately 29 people attended.
  - The purpose of this meeting was to provide a description of the process, explain the latest developments regarding project Purpose and Need, and solicit public input and address concerns. Information was provided on crash locations, travel demands, traffic congestion, alternative transportation modes, and existing deficiencies.

- **December 4, 2001**, 5:30 pm to 7:00 pm, at the Camp Creek Inn on U.S. Highway 189/191 in Teton County.
  - Approximately 37 people attended.
  - The purpose of this meeting was to provide a project update, present ongoing data collection results, solicit public input, and address concerns.

- **July 9, 2002**, 5:00 pm to 7:00 pm, at the WYDOT Office on U.S. Highway 26/89/189/191 in Teton County.
  - Approximately 50 people attended.
  - This meeting was held to present alternatives evaluated and those dismissed, present the next steps in the process, and solicit public input.

- **February 18, 2003**, 5:00 pm to 7:00 pm, at the WYDOT Office on U.S. Highway 26/89/189/191 in Teton County.
  - Approximately 26 people attended.
  - The purpose of this meeting was to present WYDOT recommendations on alternatives and options for the Hoback Junction area and to obtain public comments on those recommendations.

- **August 5, 2003**, 5:30 pm to 7:30 pm, at the Fire Station at Hoback Junction.
  - Approximately 33 people attended.
  - The purpose of this meeting was to present alternatives and options advanced and dismissed for the Hoback Junction area and to obtain public comments on these alternatives.

- **November 3, 2004**, 5:30 pm to 7:00pm, at the Jackson Hole High School Commons Area.
  - Approximately 46 people attended.
  - The purpose of this meeting was to present the evaluation of alternatives and receive public input on two sections of highway: the section from Hoback Junction to South Park Road and the section from Hoback Junction to the east project terminus.

4.2.4 Newsletters and Postcards

Project newsletters and a postcard were developed to provide project information to the public and reach an audience who might not have attended the public open houses. Eleven newsletters and one postcard, dated from September 2000 to August 2005, were sent to individuals on the project mailing list throughout the course of the project. Newsletters were also made available on the WYDOT Web site (http://dot.state.wy.us) under the link "Public Meeting Schedule." The newsletters and postcard provided information, such as project introduction, explanation of the public involvement and NEPA process, announcements of public meetings and information to be presented, project schedule, and summary information, such as public comments received and results of alternatives analysis

4.2.5 Project Contacts

Project staffs were available to answer questions from the public. They were responsive and available to the public via phone, fax, e-mail, and in person. The two main project contacts were:

Timothy Stark, PE
Environmental Services
Wyoming Department of Transportation
5300 Bishop Blvd.
Cheyenne, WY 82009-3340
307-777-4379 (phone)
307-777-4193 (fax)
E-mail: timothy.stark@dot.state.wy.us

Jeanette Lostracco, AICP
Consultant Project Manager
Carter & Burgess, Inc.
707 17th Street, Suite 2300
Denver, CO 80202
303-820-5240 (phone)
303-820-2402 (fax)
E-mail: Jeanette.lostracco@c-b.com

4.2.6 Public Information and Press Releases

Press releases were distributed for the public open houses held on September 27, 2000, February 18, 2003, and November 3, 2004 (see **Appendix B**).

An advertisement was sent to the following newspapers announcing the February 18, 2003, public meeting:

- *Star Valley Independent* (Alpine)
- *Jackson Hole News and Jackson Hole Guide*
- *Pinedale Roundup*

4.2.7 Special Outreach to Environmental Justice Populations

Outreach to low-income and minority populations was based on U.S. Census Bureau data, field investigation, and coordination with local agencies. While it was expected that some of the residents and businesses in the study area would receive project information through traditional communications (newspapers, television, radio) and through project mailings,

special outreach efforts were made to ensure an increased level of project awareness and participation in the project. Specialized outreach activities included the following:

- Newsletter #4 announcing the July 9, 2002, public meeting was hand-delivered to residents of the Evans Mobile Home Court, and the mobile homes north of Henry's Road intersection.
- Spanish language translation and interpretation was made available upon request for all project mailings and public meetings.
- Newsletters announcing the June 14, 2001, public meeting were sent to the following locations:
  - Teton County Library
  - Jackson Hole Chamber of Commerce
  - Jackson Hole Mountain Resort
  - START Public Bus Service
  - Department of Family Services
  - Good Samaritan Mission
  - Teton County Public Health Department
  - Our Lady of the Mountains Catholic Church
  - Brad Crouch (ID Team member), Point Store in Hoback Junction
  - Conservation Alliance
  - Carmena Oaks, Jackson Town Hall
  - The Learning Center

In addition, the following public meetings were held at locations near Hoback Junction to provide a convenient meeting location for study area residents:

- June 14, 2001, Hoback Fire Station at Hoback Junction
- August 5, 2003, Hoback Fire Station at Hoback Junction
- December 4, 2004, Camp Creek Inn, east of Hoback Junction

4.2.8 Letters and Comments

Written communication in the form of letters and comment sheets was received throughout the project. As of March 28, 2006, and prior to the EA public comment period, approximately 77 comments were received via letter, phone conversation, meeting, e-mail, or facsimile. This does not include comments received at the public open houses.

4.3 Public Input Obtained

General public comments included:

- Preserve wildlife and scenic quality—brings visitors to area—economic impact.
- Do not impact river—protect the river and its classification.
- Hoback Junction is a community—preserve it.

- Noise concerns—traffic and truck air brakes.
- Don't build a wide four- or five-lane highway.
- Improve safety—decrease traffic speed, separate pedestrians from traffic, reduce/avoid steep grades (icy in winter), widen highway.
- Want multiuse of pathways (pedestrians, bicycles, ATVs, snowmobiles).
- Concern about lengthy construction period—expensive and inconvenient.
- Concern that highway improvement will decrease property values.
- Concern about landscaping—aesthetics, who will pay for it, water conservation, visibility.
- Concern about impact to business and customer access.

4.3.1 Interdisciplinary Team

An Interdisciplinary (ID) Team was established to provide input to FHWA and WYDOT regarding decision making throughout the NEPA process (see also Section 2.2). The ID Team included representatives of the U.S. Forest Service, Teton County, Lincoln County, Sublette County, Wyoming Game and Fish Department, the Jackson Hole Conservation Alliance, WYDOT, FHWA, local businesses, and Carter & Burgess, Inc. This team met at key points throughout the project to provide feedback on technical and environmental issues and participate in the screening of alternatives. ID Team members possessed technical expertise in the areas of engineering, environment, business concerns, wildlife, transportation, and recreation. Together they provided a wealth of knowledge to assist in preparing the NEPA document.

ID Team meetings were held throughout the Hoback Junction EIS project, from January 2001 to May 2007. Information presented and discussed at these meetings relevant to the Hoback Junction EA included:

- History and data on the roadway, including safety, wildlife, traffic characteristics, highway system, property ownership, existing deficiencies, alternative transportation modes, and recreation access.

- Alternative screening process and identification of range of alternatives to be considered.

- Frontage road options, Snake River bridge condition, and evaluation criteria for number of lanes in the Hoback Junction area.

- Regulatory role of the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service, and information on wildlife, wetlands, and cultural resources.

- Identification of missing data and raise awareness of issues for future process.

- Alternatives dismissed from further consideration and those to be fully evaluated in the EA.

4.3.2 Hoback Junction Charrette Conducted by Teton County

Teton County was responsible for conducting a community design charrette (documented in the *Charrette Report*) over a four-day period from January 16 to 19, 2002. The purpose of the

charrette was to involve the community in evaluating the needs and goals for land use and transportation at Hoback Junction. It included community members, local government officials, representatives of local organizations, business owners, and a design team lead by Design Workshop, Jorgensen Associates, and Strout Architects. The charrette was organized to offer as many opportunities for public comment and involvement as possible, from drop-in one-on-one participation to group discussions and public meetings. Property owners in both the Snake and Hoback canyons, and property owners as far north as Henry's Road were notified by mail of the charrette schedule. If community members were unable to attend the charrette, they were given the opportunity to voice their ideas, questions, and concerns in writing directly to Teton County and the design team. The *Charrette Report*, dated July 2002, documents the results of these meetings.

As part of the public process, interviews were conducted with stakeholders to hear their issues and concerns related to Hoback Junction and the wider community. Comments received are summarized below:

- Safety:
  - Safety of access into the Junction is of primary concern.
  - Narrow shoulders, lack of vehicle turnouts, and no protected pedestrian circulation are just some of the facilities that need attention.
  - Traffic speeds through the Junction are too fast, and there is currently no safe way for pedestrians to cross the highway. A pedestrian underpass may be a viable option to safely cross the highway.
  - Some method of stopping traffic was suggested.
- Connectivity:
  - Connectivity in Hoback Junction is very important and is currently problematic.
  - A series of pathways joined by common spaces were suggested to thread together scattered neighborhoods and community areas.
  - A pathway connection north to Jackson was suggested to link the overall pathway network.
- Transportation:
  - Transportation issues are twofold:
    - Handling traffic on the highway in a safe and efficient manner that addresses community needs.
    - Addressing the poor connectivity of the residential areas to the commercial core for pedestrians and bicycles.

- Community:
  - The rural character of the area needs to be preserved.
  - A START bus stop needs to be established in the Junction.

In developing alternatives for the Hoback Junction project area, WYDOT and FHWA took into consideration the views expressed by the public during the County's charrette process.

4.4 Agency Input Obtained

4.4.1 Coordination with State and Federal Agencies

Meetings were held with several state and federal agencies throughout the EA process, including the Environmental Protection Agency, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Bureau of Land Management, U.S. Forest Service, and Wyoming Game and Fish Department. The purpose of these meetings was to conduct scoping, collect data, and obtain technical direction and input.

4.4.1.1 Cooperating Agencies

The following agencies were invited to participate as a cooperating agency on this project in accordance with FHWA regulations 23 CFR 771.111(d):

- Bureau of Land Management
- Teton County
- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Forest Service

The U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service accepted the invitation to serve as a cooperating agency on this project (see **Appendix C**).

4.4.2 Coordination with Local Agencies

The project team met with Teton County Commissioners and the Teton County Planning Department throughout the course of the project to discuss evaluation criteria, alternatives, and land use and zoning within the study area.

4.4.3 Coordination Subsequent to the Release of the EA

A Notice of Availability of this EA and the date for the Public Hearing will be announced in the *Casper Star Tribune, Star Valley Independent, Jackson Hole News, Jackson Hole Guide,* and *Pinedale Roundup* at least 15 days in advance of the hearing. This notice will also be mailed to individuals on the project mailing list.

At the Public Hearing, the general public will be given the opportunity to provide official comment on the project and the EA. Written comments, to be included as an official part of the record, will be accepted for 30 days following the Notice of Availability.

Appendix A
Wildlife Species Potentially Occurring in the Greater Study Area

Wildlife Species Potentially Occurring in the Greater Study Area

Common Name	Scientific Name	Abundance	Season
Mammals			
Cinerus Or Masked Shrew	*Sorex cinereus*	C	R
Vagrant Shrew	*Sorex vagrans*	R	R
Dusky Or Montane Shrew	*Sorex monticolus*	C	R
Dwarf Shrew	*Sorex nanus*	R	R
Water Shrew	*Sorex palustris*	C	R
Merriam's Shrew	*Sorex merriami*	R	R
Little Brown Myotis	*Myotis lucifugus*	C	UD
Long-Eared Myotis	*Myotis evotis*	UD	UC
Long-Legged Myotis	*Myotis volans*	UK	UD
Western Small-Footed Myotis	*Myotis ciliolabrum*	UC	UC
Silver-Haired Bat	*Lasionycteris noctivagans*	UC	UD
Big Brown Bat	*Eptesicus fuscus*	C	UD
Red Bat	*Lasiurus borealis*	R	SR
Hoary Bat	*Lasiurus cinereus*	R	SR
Spotted Bat	*Euderma maculatum*	R	SR
Townsend's Big-Eared Bat	*Plecotus townsendii*	R	UD
Pallid Bat	*Antrozous pallidus*	R	SR
American Pika	*Ochotona princeps*	C	R
Mountain (Nuttall's) Cottontail	*Sylvilagus nuttallii*	C	R
Desert Cottontail	*Sylvilagus audubonii*	C	R
Snowshoe Hare	*Lepus americanus*	C	R
White-Tailed Jack Rabbit	*Lepus townsendii*	C	R
Least Chipmunk	*Tamias minimus*	A	R
Yellow-Pine Chipmunk	*Tamias amoenus*	UC	R
Uinta Chipmunk	*Tamias umbrinus*	UC	R
Yellow-Bellied Marmot	*Marmota flaviventris*	C	R
Uinta Ground Squirrel	*Spermophilus armatus*	UC	R
Golden-Mantled Ground Squirrel	*Spermophilus lateralis*	C	R
Wyoming Ground Squirrel	*Spermophilus elegans*	C	R
Red Squirrel	*Tamiasciurus hudsonicus*	C	R
Northern Flying Squirrel	*Glaucomys sabrinus*	UC	R
Northern Pocket Gopher	*Thomomys talpoides*	C	R
Deer Mouse	*Peromyscus maniculatus*	A	R
Bushy-Tailed Wood Rat	*Neotoma cinerea*	C	R
Southern Red-Backed Vole	*Clethrionomys gapperi*	C	R
Heather Vole	*Phenacomys intermedius*	C	R
Meadow Vole	*Microtus pennsylvanicus*	C	R
Montane Vole	*Microtus montanus*	C	R
Long-Tailed Vole	*Microtus longicaudus*	C	R

continued

Wildlife Species Potentially Occurring in the Greater Study Area (continued)

Common Name	Scientific Name	Abundance	Season
Mammals (cont'd.)			
Water Vole	*Microtus richardsoni*	R	R
Sagebrush Vole	*Lemmiscus curtatus*	C	R
Western Jumping Mouse	*Zapus princeps*	UC	R
Common Porcupine	*Erethizon dorsatum*	C	R
Furbearers			
Coyote	*Canis latrans*	C	R
Red Fox	*Vulpes vulpes*	C	R
Gray Wolf	*Canis lupus*	UC	R
Black Bear	*Ursus americanus*	C	R
Grizzly Or Brown Bear	*Ursus arctos*	R	R
Muskrat	*Ondatra zibethicus*	C	R
American Beaver	*Castor canadensis*	C	R
Common Raccoon	*Procyon lotor*	C	R
American Marten	*Martes americana*	UC	R
Ermine	*Mustela erminea*	UC	R
Least Weasel	*Mustela nivalis*	R	R
Long-Tailed Weasel	Mustela frenata	C	R
Mink	*Mustela vison*	C	R
North American Wolverine	*Gulo gulo luscus*	R	R
American Badger	*Taxidea taxus*	C	R
Striped Skunk	*Mephitis mephitis*	C	R
Northern River Otter	*Lutra canadensis*	UC	R
Mountain Lion	*Felis concolor*	UC	R
Lynx	*Lynx canadensis*	R	R
Bobcat	*Lynx rufus*	C	R
Big Game			
Elk	*Cervus elaphus*	C	R
Mule Deer	*Odocoileus hemionus*	C	R
White-Tailed Deer	*Odocoileus virginianus*	C	R
Moose	***Alces alces***	C	R
Pronghorn	*Antilocapra americana*	C	R
American Bison	*Bison bison*	R	R
Mountain Goat	*Oreamnos americanus*	R	R
Bighorn Sheep	*Ovis canadensis*	C	R
Raptors			
Turkey Vulture	*Cathartes aura*	C	SR
Osprey	*Pandion haliaetus*	C	SR
Bald Eagle	*Haliaeetus leucocephalus*	UC	R

continued

Wildlife Species Potentially Occurring in the Greater Study Area (continued)

Common Name	Scientific Name	Abundance	Season
Raptors (cont'd.)			
Northern Harrier	*Circus cyaneus*	C	SR
Sharp-Shinned Hawk	*Accipiter striatus*	C	SR
Cooper's Hawk	*Accipiter cooperii*	C	SR
Northern Goshawk	*Accipiter gentilis*	C	R
Swainson's Hawk	*Buteo swainsoni*	C	SR
Red-Tailed Hawk	*Buteo jamaicensis*	C	R
Ferruginous Hawk	*Buteo regalis*	C	R
Rough-Legged Hawk	*Buteo lagopus*	C	W
Golden Eagle	*Aquila chrysaetos*	C	R
American Kestrel	*Falco sparverius*	C	SR
Merlin	*Falco columbarius*	UC	R
Peregrine Falcon	*Falco peregrinus*	R	R
Prairie Falcon	*Falco mexicanus*	C	R
Upland Game Birds			
Gray Partridge	*Perdix perdix*	UC	R
Blue Grouse	*Dendragapus obscurus*	C	R
Ruffed Grouse	*Bonasa umbellus*	C	R
Sage Grouse	*Centrocercus urophasianus*	C	R
Owls			
Common Barn Owl	*Tyto alba*	UK	SR
Flammulated Owl	*Otus flammeolus*	R	A
Western Screech Owl	*Otus kennicottii*	C	R
Great-Horned Owl	*Bubo virginianus*	C	R
Northern Pygmy-Owl	*Glaucidium gnoma*	UK	R
Burrowing Owl	*Athene cunicularia*	UC	SR
Great Gray Owl	*Strix nebulosa*	UK	R
Long-Eared Owl	*Asio otus*	C	R
Short-Eared Owl	*Asio flammeus*	C	R
Boreal Owl	*Aegolius funereus*	UK	R
Northern Saw-Whet Owl	*Aegolius acadicus*	UK	R
Waterfowl and Water Birds			
Tundra Swan	*Cygnus columbianus*	UC	W
Trumpeter Swan	*Cygnus buccinator*	UC	R
Snow Goose	*Chen caerulescens*	UC	M
Canada Goose	*Branta canadensis*	A	R
Wood Duck	*Aix sponsa*	UC	SR
Green-Winged Teal	*Anas crecca*	A	R
Mallard	*Anas platyrhynchos*	A	R

continued

Wildlife Species Potentially Occurring in the Greater Study Area (continued)

Common Name	Scientific Name	Abundance	Season
Waterfowl and Water Birds (cont'd.)			
Northern Pintail	*Anas acuta*	A	R
Blue-Winged Teal	*Anas discors*	C	SR
Cinnamon Teal	*Anas cyanoptera*	C	SR
Northern Shoveler	*Anas clypeata*	C	SR
Gadwall	*Anas strepera*	A	R
American Wigeon	*Anas americana*	A	R
Canvasback	*Aythya valisineria*	UC	SR
Redhead	*Aythya americana*	C	SR
Ring-Necked Duck	*Aythya collaris*	C	SR
Lesser Scaup	*Aythya affinis*	UC	SR
Harlequin Duck	*Histrionicus histrionicus*	UC	SR
Common Goldeneye	*Bucephala clangula*	C	R
Barrow's Goldeneye	*Bucephala islandica*	C	R
Bufflehead	*Bucephala albeola*	UC	R
Hooded Merganser	*Lophodytes cucullatus*	UC	R
Common Merganser	*Mergus merganser*	C	R
Ruddy Duck	*Oxyura jamaicensis*	C	SR
Common Loon	*Gavia immer*	UC	SR
Pied-Billed Grebe	*Podilymbus podiceps*	C	SR
Horned Grebe	*Podiceps auritus*	UC	SR
Red-Necked Grebe	*Podiceps grisegena*	R	SR
Eared Grebe	*Podiceps nigricollis*	C	SR
American White Pelican	*Pelecanus erythrorhynchos*	C	SR
Double-Crested Cormorant	*Phalacrocorax auritus*	C	SR
American Bittern	*Botaurus lentiginosus*	UC	SR
Great Blue Heron	*Ardea herodias*	C	SR
Great Egret	*Casmerodius albus*	R	A
Snowy Egret	*Egretta thula*	UC	SR
Black-Crowned Night-Heron	*Nycticorax nycticorax*	UC	SR
White-Faced Ibis	*Plegadis chihi*	UC	SR
Virginia Rail	*Rallus limicola*	UK	SR
Sora	*Porzana carolina*	C	SR
American Coot	*Fulica americana*	A	SR
Sandhill Crane	*Grus canadensis*	A	SR
Whooping Crane	*Grus americana*	R	SR
Killdeer	*Charadrius vociferus*	A	SR
Black Necked Stilt	*Himantopus mexicanus*	UC	SR
American Avocet	*Recurvirostra americana*	C	SR

continued

Wildlife Species Potentially Occurring in the Greater Study Area (continued)

Common Name	Scientific Name	Abundance	Season
Waterfowl and Water Birds (cont'd.)			
Greater Yellowlegs	*Tringa melanoleuca*	C	M
Lesser Yellowlegs	*Tringa flavipes*	C	M
Solitary Sandpiper	*Tringa solitaria*	C	M
Willet	*Catoptrophorus semipalmatus*	C	SR
Spotted Sandpiper	*Actitis macularia*	C	SR
Upland Sandpiper	*Bartramia longicauda*	UC	SR
Long-Billed Curlew	*Numenius americanus*	UC	SR
Marbled Godwit	*Limosa fedoa*	UC	M
Semipalmated Sandpiper	*Calidris pusilla*	UC	M
Least Sandpiper	*Calidris minutilla*	C	M
Baird's Sandpiper	*Calidris bairdii*	C	M
Long-Billed Dowitcher	*Limnodromus scolopaceus*	C	M
Common Snipe	*Gallinago gallinago*	C	SR
Wilson's Phalarope	*Phalaropus tricolor*	C	SR
Red-Necked Phalarope	*Phalaropus lobatus*	UC	M
Franklin's Gull	*Larus pipixcan*	C	SR
Bonaparte's Gull	*Larus philadelphia*	UC	M
Ring-Billed Gull	*Larus delawarensis*	C	SR
California Gull	*Larus californicus*	C	SR
Caspian Tern	*Sterna caspia*	UC	SR
Common Tern	*Sterna hirundo*	UC	M
Forster's Tern	*Sterna forsteri*	C	SR
Black Tern	*Chlidonias niger*	C	SR
Other Birds			
Olive-Sided Flycatcher	***Contopus borealis***	C	SR
Western Wood Pewee	*Contopus sordidulus*	C	SR
Willow Flycatcher	*Empidonax traillii*	C	SR
Hammond's Flycatcher	*Empidonax hammondii*	UC	SR
Dusky Flycatcher	*Empidonax oberholseri*	C	SR
Cordilleran Flycatcher	*Empidonax occidentalis*	C	SR
Say's Phoebe	*Sayornis saya*	C	SR
Ash-Throated Flycatcher	*Myiarchus cinerascens*	UK	SR
Western Kingbird	*Tyrannus verticalis*	C	SR
Eastern Kingbird	*Tyrannus tyrannus*	C	SR
Horned Lark	*Eremophila alpestris*	A	R
Tree Swallow	*Tachycineta bicolor*	C	SR
Violet-Green Swallow	*Tachycineta thalassina*	C	SR
Northern Rough-Winged Swallow	*Stelgidopteryx serripennis*	C	SR

continued

Wildlife Species Potentially Occurring in the Greater Study Area (continued)

Common Name	Scientific Name	Abundance	Season
Other Birds (cont'd.)			
Bank Swallow	*Riparia riparia*	C	SR
Cliff Swallow	*Hirundo pyrrhonota*	C	SR
Barn Swallow	*Hirundo rustica*	C	SR
Gray Jay	*Perisoreus canadensis*	C	R
Steller's Jay	*Cyanocitta stelleri*	C	R
Blue Jay	*Cyanocitta cristata*	C	R
Pinyon Jay	*Gymnorhinus cyanocephalus*	UC	R
Clark's Nutcracker	*Nucifraga columbiana*	C	R
Black-Billed Magpie	*Pica pica*	A	R
American Crow	*Corvus brachyrhynchos*	C	R
Common Raven	*Corvus corax*	C	R
Black-Capped Chickadee	*Parus atricapillus*	C	R
Mountain Chickadee	*Parus gambeli*	C	R
Red-Breasted Nuthatch	*Sitta canadensis*	C	R
White-Breasted Nuthatch	*Sitta carolinensis*	C	R
Brown Creeper	*Certhia americana*	C	R
Rock Wren	*Salpinctes obsoletus*	C	SR
Canyon Wren	*Catherpes mexicanus*	UC	SR
House Wren	*Troglodytes aedon*	C	SR
Marsh Wren	*Cistothorus palustris*	C	SR
American Dipper	*Cinclus mexicanus*	C	R
Golden-Crowned Kinglet	*Regulus satrapa*	UC	R
Ruby-Crowned Kinglet	*Regulus calendula*	C	SR
Mountain Bluebird	*Sialia currucoides*	C	SR
Townsend's Solitaire	*Myadestes townsendi*	C	R
Veery	*Catharus fuscescens*	UC	SR
Swainson's Thrush	*Catharus ustulatus*	C	SR
American Robin	*Turdus migratorius*	C	R
Catbird	*Dumetella carolinensis*	C	SR
Sage Thrasher	*Oreoscoptes montanus*	C	SR
American (Water) Pipit	*Anthus rubescens*	C	SR
Sprague's Pipit	*Anthus spragueii*	UC	M
Bohemian Waxwing	*Bombycilla garrulus*	C	W
Cedar Waxwing	*Bombycilla cedrorum*	UC	R
Northern Shrike	*Lanius excubitor*	C	W
Loggerhead Shrike	*Lanius ludovicianus*	C	SR
Warbling Vireo	*Vireo gilvus*	A	SR
Orange-Crowned Warbler	*Vermivora celata*	UC	SR

continued

Wildlife Species Potentially Occurring in the Greater Study Area (continued)

Common Name	Scientific Name	Abundance	Season
Other Birds (cont'd.)			
Yellow Warbler	*Dendroica petechia*	A	SR
Yellow-Rumped Warbler	*Dendroica coronata*	C	SR
Townsend's Warbler	*Dendroica townsendi*	UK	SR
Northern Waterthrush	*Seiurus noveboracensis*	UC	M
Macgillivray`S Warbler	*Oporornis tolmiei*	C	SR
Common Yellowthroat	*Geothlypis trichas*	C	SR
Wilson's Warbler	*Wilsonia pusilla*	C	SR
Western Tanager	*Piranga ludoviciana*	C	SR
Rose-Breasted Grosbeak	*Pheucticus ludovicianus*	UC	SR
Black-Headed Grosbeak	*Pheucticus melanocephalus*	C	SR
Lazuli Bunting	*Passerina amoena*	C	SR
Indigo Bunting	*Passerina cyanea*	UC	SR
Dickcissel	*Spiza americana*	UC	SR
Green-Tailed Towhee	*Pipilo chlorurus*	C	SR
Rufous-Sided Towhee	*Pipilo erythrophthalmus*	C	SR
American Tree Sparrow	*Spizella arborea*	UC	W
Chipping Sparrow	*Spizella passerina*	C	R
Brewer's Sparrow	*Spizella breweri*	C	SR
Vesper Sparrow	*Pooecetes gramineus*	C	SR
Lark Sparrow	*Chondestes grammacus*	C	SR
Lark Bunting	*Calamospiza melanocorys*	A	SR
Savannah Sparrow	*Passerculus sandwichensis*	C	SR
Fox Sparrow	*Passerella iliaca*	C	R
Song Sparrow	*Melospiza melodia*	C	R
Lincoln's Sparrow	*Melospiza lincolnii*	C	SR
White Crowned Sparrow	*Zonotrichia leucophrys*	C	SR
Harris' Sparrow	*Zonotrichia querula*	UC	W
Dark-Eyed Junco	*Junco hyemalis*	C	R
Lapland Longspur	*Calcarius lapponicus*	C	W
Chestnut-Collared Longspur	*Calcarius ornatus*	UC	SR
Snow Bunting	*Plectrophenax nivalis*	UC	W
Bobolink	*Dolichonyx oryzivorus*	UC	SR
Red-Winged Blackbird	*Agelaius phoeniceus*	A	SR
Western Meadowlark	*Sturnella neglecta*	A	SR
Yellow-Headed Blackbird	*Xanthocephalus xanthocephalus*	C	SR
Brewer's Blackbird	*Euphagus cyanocephalus*	A	SR
Common Grackle	*Quiscalus quiscula*	C	SR
Brown-Headed Cowbird	*Molothrus ater*	C	SR

continued

Wildlife Species Potentially Occurring in the Greater Study Area (continued)

Common Name	Scientific Name	Abundance	Season
Other Birds (cont'd.)			
Orchard Oriole	*Icterus spurius*	UC	SR
Northern Oriole	*Icterus galbula*	C	SR
Rosy Finch	*Leucosticte atrata*	C	R
Pine Grosbeak	*Pinicola enucleator*	UC	R
Purple Finch	*Carpodacus purpureus*	UC	W
Cassin's Finch	*Carpodacus cassinii*	C	R
House Finch	*Carpodacus mexicanus*	C	R
Red Crossbill	*Loxia curvirostra*	C	R
White-Winged Crossbill	*Loxia leucoptera*	UC	R
Common Redpoll	*Carduelis flammea*	UC	W
Pine Siskin	*Carduelis pinus*	C	R
American Goldfinch	*Carduelis tristis*	C	R
Evening Grosbeak	*Coccothraustes vespertinus*	C	R
Mountain Plover	*Charadrius montanus*	C	SR
Mourning Dove	*Zenaida macroura*	A	SR
Black-Billed Cuckoo	*Coccyzus erythropthalmus*	UC	SR
Common Nighthawk	*Chordeiles minor*	A	SR
White-Throated Swift	*Aeronautes saxatalis*	C	SR
Black-Chinned Hummingbird	*Archilochus alexandri*	UC	SR
Calliope Hummingbird	*Stellula calliope*	C	SR
Broad-Tailed Hummingbird	*Selasphorus platycercus*	C	SR
Rufous Hummingbird	*Selasphorus rufus*	C	SR
Belted Kingfisher	*Ceryle alcyon*	C	R
Lewis' Woodpecker	*Melanerpes lewis*	UC	SR
Williamson's Sapsucker	*Sphyrapicus thyroideus*	UC	SR
Red-Naped Sapsucker	*Sphyrapicus nuchalis*	C	SR
Downy Woodpecker	*Picoides pubescens*	C	SR
Hairy Woodpecker	*Picoides villosus*	UC	R
Three-Toed Woodpecker	*Picoides tridactylus*	UC	R
Black-Backed Woodpecker	*Picoides arcticus*	R	R
Northern Flicker	*Colaptes auratus*	C	R
Herptiles			
Tiger Salamander	*Ambystoma tigrinum*	C	R
Boreal Western Toad	*Bufo boreas boreas*	C	R
Boreal Chorus Frog	*Pseudacris triseriata*	C	R
Northern Leopard Frog	*Rana pipiens*	C	R
Spotted Frog	*Rana pretiosa*	C	R
Eastern Short-Horned Lizard	*Phrynosoma douglasi*	C	R

continued

Wildlife Species Potentially Occurring in the Greater Study Area (continued)

Common Name	Scientific Name	Abundance	Season
Herptiles (cont'd.)			
Northern Sagebrush Lizard	*Sceloporus graciosus*	C	R
Rubber Boa	*Charina bottae*	R	R
Wandering Garter Snake	*Thamnophis elegans vagrans*	C	R
Common Garter Snake	*Thamnophis sirtalis*	C	R

Appendix B
Public Involvement

the revenue from a PFC submitted by City of Cleveland was substantially complete within the requirements of § 158.25 of Part 158. The FAA will approve or disapprove the application, in whole or in part, no later than October 11, 2000.

The following is a brief overview of the application.

PFC Application No.: 00 07 U CLE.

Level of the PFC: $3.00.

Actual charge effective date: July 1, 1995.

Estimate charge expiration date: January 1, 1997.

Total approved net PFC revenue: $20,700,542.00.

Brief description of proposed projects: NASA Feasibility and Pre-Engineering Study for Relocation of Engine Testing Facility and Waste Water/Glycol Collection System.

Class or classes of air carriers which the public agency has requested not be required to collect PFCs: Air taxi/commercial operators.

Any person may inspect the application in person at the FAA office listed above under **FOR FURTHER INFORMATION CONTACT.**

In addition, any person may, upon request, inspect the application, notice, and other documents germane to the application in person at the Department of Port Control, Cleveland Hopkins International Airport.

Issued in Des Plaines, Illinois, on August 17, 2000.

Benito De Leon,

Manager, Planning/Programming Branch, Airports Division, Great Lakes Region.

[FR Doc. 00 21818 Filed 8 24 00; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Notice of Intent To Rule on Application To Impose and Use the Revenue From a Passenger Facility Charge (PFC) at Golden Triangle Regional Airport, Columbus, MS

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of intent to rule on application.

SUMMARY: The FAA proposes to rule and invites public comment on the application to impose and use the revenue from a PFC at Golden Triangle Regional Airport under the provisions of the Aviation Safety and Capacity Expansion Act of 1990 (Title IX of the Omnibus Budget Reconciliation Act of 1990) (Pub. L. 101 508) and Part 158 of the Federal Aviation Regulations (14 CFR Part 158).

DATES: Comments must be received on or before September 25, 2000.

ADDRESSES: Comments on this application may be mailed or delivered in triplicate to the FAA at the following address: Jackson Airports District Office, Jackson International Airport, 100 West Cross Street, Suite B, Jackson, MS 39208 2307.

In addition, one copy of any comments submitted to the FAA must be mailed or delivered to Mr. Nick Ardillo, Jr., Executive Director of the Golden Triangle Regional Airport Authority at the following address: Mr. Nick P. Ardillo, Jr., Executive Director, Golden Triangle Regional Airport Authority, 2080 Airport Road, Columbus, MS 39701.

Air carriers and foreign air carriers may submit copies of written comments previously provided to the Golden Triangle Regional Airport Authority under § 158.23 of Part 158.

FOR FURTHER INFORMATION CONTACT: David Shumate, Program Manager, Jackson Airports District Office, Jackson International Airport, 100 West Cross Street, Suite B, Jackson, MS 39208 2307, (601) 664 9882. The application may be reviewed in person at this same location.

SUPPLEMENTARY INFORMATION: The FAA proposes to rule and invites public comment on the application to impose and use the revenue from a PFC at Golden Triangle Regional Airport under the provisions of the Aviation Safety and Capacity Expansion Act of 1990 (Title IX of the Omnibus Budget Reconciliation Act of 1990) (Pub. L. 101 508) and Part 158 of the Federal Aviation Regulations (14 CFR Part 158).

On August 18, 2000, the FAA determined that the application to impose and use the revenue from a PFC submitted by Golden Triangle Regional Airport Authority was substantially complete within the requirements of § 158.25 of Part 158. The FAA will approve or disapprove the application, in whole or in part, no later than December 14, 2000.

The following is a brief overview of the application.

PFC Application No.: 00 02 C 00 GTR.

Level of the proposed PFC: $3.00.

Proposed charge effective date: November 1, 2000.

Proposed charge expiration date: February 1, 2002.

Total estimated net PFC revenue: $223,631.

Brief description of proposed project(s): Rehabilitation of terminal entrance road; DBE Program; Terminal Building Modifications; Rehabilitation of General Aviation Overflow Apron; General Aviation Apron Sealcoat; Security Gates Replacement; Taxiway Porous Friction Course & Striping; ARFF Vehicle/Fire Fighting Equipment; Renovation of CFR Building; Runway Lighting System.

Class or classes of air carriers which the public agency has requested not be required to collect PFCs: None.

Any person may inspect the application in person at the FAA office listed above under **FOR FURTHER INFORMATION CONTACT.**

In addition, any person may, upon request, inspect the application, notice and other documents germane to the application in person at the Golden Triangle Regional Airport.

Issued in Jackson, MS on August 18, 2000.

Wayne Atkinson,

Manager, Jackson Airports District Office, Southern Region.

[FR Doc. 00 21819 Filed 8 24 00; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

Environmental Impact Statement: Teton County, Wyoming

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Notice of intent and public meeting.

SUMMARY: The FHWA is issuing this notice to advise the public that an environmental impact statement will be prepared in accordance with the National Environmental Policy Act for the proposed highway reconstruction in Teton County, Wyoming. The FHWA in cooperation with the Wyoming Department of Transportation (WYDOT) invite public comment and will be holding a scoping meeting prior to commencing work on the environmental impact statement.

The meeting will be held on Wednesday, September 27, 2000, from 5:30 p.m. to 7:00 p.m. A 60-day scoping period will begin on September 5, 2000, and concluded on November 5, 2000. Written comments on the scope of alternatives and impacts to be considered must be received by WYDOT by November 5, 2000. The meeting will be held at Teton County Public Library, 125 Virginian Lane, in Jackson, WY. Mail written comments on the Project Scope to Mr. Timothy L. Stark, P.E., Environmental Services Manager,

WYDOT, 5300 Bishop Boulevard, Cheyenne, WY 82009 3340.

FOR FURTHER INFORMATION CONTACT: Mr. Lee D. Potter, FHWA Wyoming Division, 1916 Evans Avenue, Cheyenne, Wyoming 82001, (307) 772 2012, extension 46.

SUPPLEMENTARY INFORMATION: The FHWA, in cooperation with Wyoming Department of Transportation (WYDOT), hereby give notice that they intend to prepare an Environmental Impact Statement (EIS) in accordance with the National Environmental Policy Act (NEPA), Public Law 91 190, 83 Stat. 852 (1969), as amended, for corridor improvements in the vicinity of Hoback Junction, Teton County, Wyoming. This EIS will evaluate the No Build and other Build Alternatives for proposed road and bridge reconstruction in Teton County along US Highways 191/26/89/189. The project begins approximately 6.1 miles south of Jackson along US Highway 191/26/89/189 and runs south approximately 7.2 miles to Hoback Junction. At Hoback Junction, the project branches to the southwest, along US 26/89, and to the east along US 191/189. The southwest segment, along US 26/89, is approximately 0.9 miles in length and includes the Snake River Bridge. The east segment, along US 191/189, is approximately 2.9 miles in length.

Project scoping will be accomplished through coordination with affected parties, organizations, Federal, State and local agencies and through a public scoping meeting. The FHWA and WYDOT invite interested individuals, organizations, Federal, State and local agencies to participate in defining the alternatives to be evaluated in the EIS and identifying any significant social, economic and environmental issues relating to the alternatives. An information packet describing the purpose of the project, the proposed alternatives, the areas to be evaluated, the citizen involvement program, and the preliminary project schedule will be developed. These scoping materials may be requested by contacting Mr. Timothy L. Stark at the address above. Scoping comments may be made verbally at the public scoping meeting or in writing. The public will receive notices on location and time of the scoping meeting through newspaper advertisements and individual correspondence.

To ensure that a full range of issues related to this proposed action are addressed and all significant actions are identified, comments and suggestions are invited from all interested parties. If you wish to be placed on the mailing list to receive further information as the project develops, contact Mr. Timothy L. Stark, P.E, as previously described.

Authority: 23 U.S.C. 315; 49 CFR 1.48.

Issued on: August 17, 2000.

William C. Jones,

Division Administrator, Cheyenne, WY.

[FR Doc. 00 21697 Filed 8 24 00; 8:45 am]

BILLING CODE 4910-22-M

DEPARTMENT OF TRANSPORTATION

Federal Transit Administration

[FTA–2000–7836]

Agency Information Collection Activity Under OMB Review

AGENCY: Federal Transit Administration, DOT.

ACTION: Notice of request for comments.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.), this notice announces that the Information Collection Request (ICR) abstracted below has been forwarded to the Office of Management and Budget (OMB) for extension of a currently approved collection. The ICR describes the nature of the information collection and its expected burden. The **Federal Register** Notice with a 60-day comment period soliciting comments for the Prohibited Drug Use in Transit Operations collection of information was published on May 2, 2000 (65 FR 25530) and on July 8, 1999 (64 FR 36957) for the Control of Alcohol Misuse in Transit Operations collection of information. A 30-day notice was also published for the Control of Alcohol in Transit Operations collection of information. The Department has since determined that the drug and alcohol collections of information will be combined.

DATES: Comments must be submitted before September 25, 2000. A comment to OMB is most effective if OMB receives it on or before September 25, 2000.

FOR FURTHER INFORMATION CONTACT: Sylvia L. Barney-Marion, Office of Administration, Office of Management Planning, (202) 366 6680.

SUPPLEMENTARY INFORMATION:

Title: Prevention of Drug Use and Alcohol Misuse in Transit Operations (*OMB Numbers:* 2132 0556 and 2132 0557)

Abstract: The Omnibus Transportation Employee Testing Act of 1991 (Pub. L. 102 143, October 28, 1991, now codified in relevant part at 49 U.S.C. 5331) requires any recipient of federal financial assistance under 49 U.S.C. 5309, 5307, or 5311 or under 23 U.S.C. 103(e) (4) to establish a program designed to help prevent accidents and injuries resulting from the misuse of drugs and alcohol by employees who perform safety-sensitive functions. FTA's regulations, 49 CFR part 653, "Prevention of Prohibited Drug Use in Transit Operations," and 49 CFR part 654, "Control of Alcohol Misuse in Transit Operations," effective March 17, 1994, require recipients to submit to FTA annual reports containing data which summarize information concerning the recipients' drug and alcohol testing programs, such as the number and type of tests given, number of positive test results, and the kinds of safety-sensitive functions the employees perform. FTA uses these data to ensure compliance with the rule, to assess the misuse of drugs and alcohol in the transit industry, and to set the random testing rate. The data will also be used to assess the effectiveness of the rule in reducing the misuse of drugs and alcohol among safety-sensitive transit employees and making transit safer for the public.

Estimated Total Annual Burden: 10,117 hours.

ADDRESSES: All written comments must refer to the docket number that appears at the top of this document and be submitted to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725—17th Street, NW., Washington, DC. 20503, Attention: FTA Desk Officer.

Comments Are Invited On: Whether the proposed collection of information is necessary for the proper performance of the functions of the Department, including whether the information will have practical utility; the accuracy of the Department's estimate of the burden of the proposed information collection; ways to enhance the quality, utility and clarity of the information to be collected; and ways to minimize the burden of the collection of information on respondents, including the use of automated collection techniques or other forms of information technology.

Dated: August 22, 2000.

Dorrie Y. Aldrich,

Associate Administrator for Administration.

[FR Doc. 00 21776 Filed 8 24 00; 8:45 am]

BILLING CODE 4910–57–P

Hoback Junction

Newsletter #1

September 2000

Introduction to the Project

The Wyoming Department of Transportation (WYDOT) is initiating an Environmental Impact Statement (EIS) for proposed transportation improvements in Teton County along US Highways 191/89/26/189.

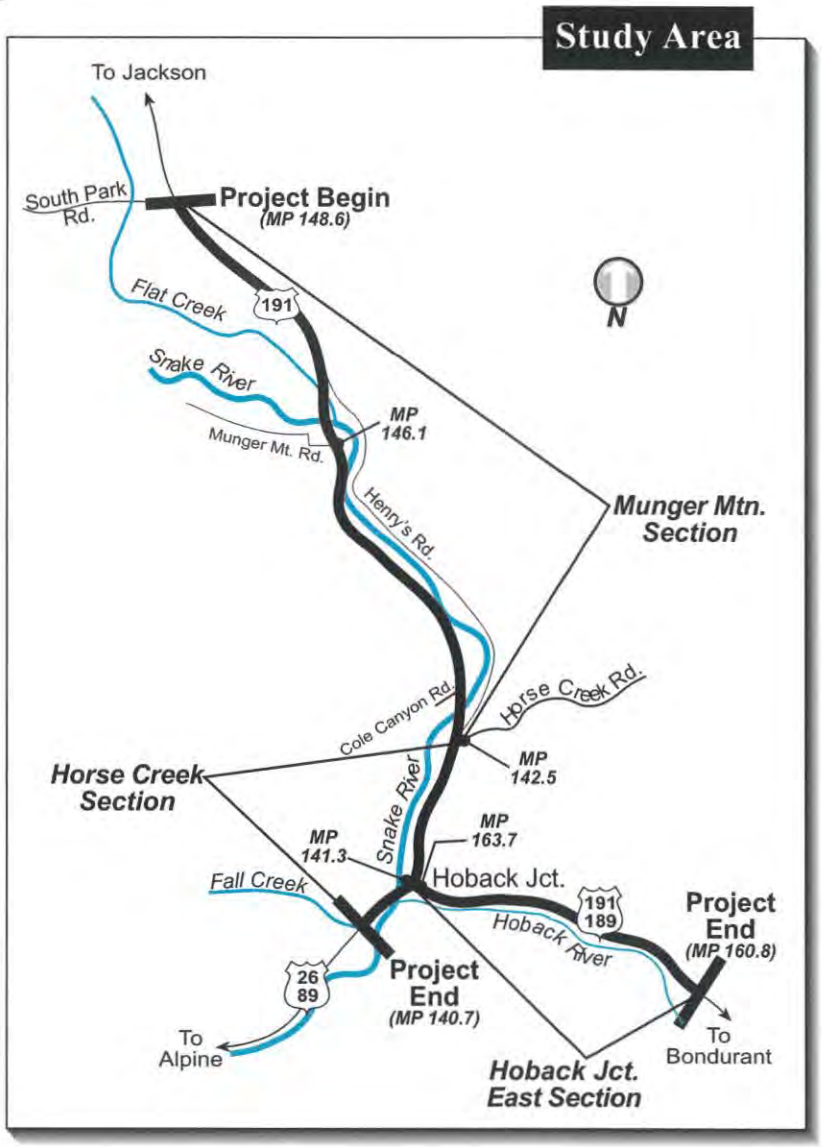
The EIS will assess potential environmental, social and economic impacts which may result from proposed transportation improvements. The study will analyze various alignment and design alternatives, including a No-Action alternative, and identify a preferred alternative.

The EIS will include specific analysis of the data and issues (an Issues list is printed on the reverse side), summarize the results of this analysis, and document inter-agency coordination and public comments during the EIS process. The EIS will be developed in cooperation with local government agencies.

Public Involvement Process

A critical part of the EIS is an extensive and open Public Involvement Process. Numerous opportunities are planned for residents and business people to become involved:

- Participate in public open houses planned at key points in the process. These are opportunities to meet informally with project staff to ask questions and to provide your input about the project.
- Receive the project newsletters.
- Provide input to the project team and complete comment sheets at the open houses.
- Project Contact:
  Timothy Stark, PE
  Environmental Services
  Wyoming Dept. of Transp.
  5300 Bishop Boulevard
  Cheyenne, Wyoming 82009-3340
  phone: 307-777-4379
  fax: 307-777-4193
  tstark@missc.state.wy.us
- For more information or to request to be placed on the project mailing list, contact:
  Jeanette Lostracco
  Carter & Burgess, Inc.
  216 16th Street Mall, Suite 1700
  Denver, CO 80202
  lostracco@c-b.com
  ph: 303-820-4808
  fax: 303-820-2401



An Environmental Impact Statement (EIS) process consists of the following steps:

1. **Scoping** - a public process which defines the issues to be addressed.
2. **Data Collection** - includes collection of traffic, environmental, and design-related data.
3. **Development of Alternatives** - includes initial identification of a full range of alternatives and then the screening to alternatives which are reasonable. This includes analysis of a No-Action alternative.
4. **Analysis of Alternatives** - identifies social, economic and environmental impacts of the reasonable alternatives including the No-Action alternative.
5. **Preparation of Draft and Final EIS** - includes need for project, description of alternatives and environmental consequences.
6. **Public and Agency Review of documents**
7. **Preparation of Record of Decision** - document the Preferred Alternative and respond to public and agency comments.

Public Open House Scoping Meeting

Please join us! Members of the project team will be present to listen to your concerns and answer your questions:

Date: Wednesday, September 27, 2000
Location: Teton County Public Library*
125 Virginian Lane
Jackson, Wyoming
Time: 5:30pm to 7:00pm

No formal presentations will be held. The meeting will be held in an open house format. Interested parties may attend any time, at their convenience, during the scheduled hours.

* In compliance with the Americans with Disabilities Act, this meeting location is accessible to disabled persons. For more information or for those who require accommodations for disabilities, call Timothy Stark, WYDOT, at 307/777-4379.

Carter & Burgess, Inc.
216 16th St. Mall, Suite 1700
Denver, CO 80202-5131

Hoback Junction

A Wyoming Department of Transportation Project Newsletter

Hoback Junction

Issues to be addressed by this Environmental Impact Statement include:

- Land Use
- Right-of-Way
- Economic / Social / Environmental Justice
- Pedestrians / Bicyclists
- Traffic / Safety
- Floodplains
- Parks / Recreation
- Air Quality
- Noise
- Water Quality / Water Resources
- Wetlands
- Wildlife / Fisheries
- Threatened or Endangered Species
- Historic & Archaeological Resources
- Hazardous Materials Sites
- Visual
- Construction
- Cumulative Secondary and Indirect Effects
- Energy
- Other issues identified during scoping

LEGAL NOTICE

Contact: Wendy Wallach or Jeanette Lostracco
Carter & Burgess

Notice of
Preparation of an Environmental Impact Statement
and Public Scoping Meeting
Teton County, Wyoming

The FHWA is hereby advising the public that an Environmental Impact Statement (EIS) will be prepared in accordance with the National Environmental Policy Act for transportation improvements in the vicinity of Hoback Junction, Teton County, Wyoming. This EIS will evaluate the No Build and other Build Alternatives for proposed transportation improvements in Teton County along US Highways 191/26/89/189. The project begins approximately 6.1 miles south of Jackson along US Highway 191/26/89/189 and runs south approximately 7.2 miles to Hoback Junction. At Hoback Junction, the project branches to the southwest, along US 26/89, and to the east along US 191/189. The southwest segment, along US 26/89, is approximately 0.9 miles in length and includes the Snake River Bridge. The east segment, along US 191/189, is approximately 2.9 miles in length. The FHWA in cooperation with the Wyoming Department of Transportation (WYDOT) invite public comment and will be holding a public scoping meeting prior to commencing work on the environmental impact statement.

The public scoping meeting will be held on Wednesday, September 27, 2000, from 5:30 p.m. to 7:00 p.m. A 60-day scoping period will begin on September 5, 2000, and conclude on November 5, 2000. Written comments on the scope of alternatives and impacts to be considered must be received by WYDOT by November 5, 2000. The meeting will be held at Teton County Public Library, 125 Virginian Lane, in Jackson, WY. For information or to request to be placed on the project mailing list, call Timothy L. Stark, P.E., at 307-777-4379. Mail written comments on the Project Scope to Mr. Timothy L. Stark, P.E., Environmental Services Manager, WYDOT, 5300 Bishop Boulevard, Cheyenne, WY 82009-3340

Hoback Junction

AGENDA

Public Scoping Meeting
Hoback Junction EIS

September 27, 2000 5:30 p.m. to 7:00 p.m.
Teton County Library

Note: No formal presentation will be held.

1. **Purpose of meeting:**
   - Obtain input on project issues
   - Provide a description of the process
   - Describe transportation needs
2. **Visit the stations in this room:**
   - Environmental Considerations
   - Roadway Needs
   - Bridge Needs
   - Intersection/Turning Movements
3. **Please provide us with comments!**
   - Talk to a person wearing a nametag. They are here to answer your questions and take your comments.
   - Fill out comment sheets. Drop in comment box or mail in later.
   - Telephone, e-mail, mail or fax your comments:

Timothy L. Stark
Environmental Services Engineer
Wyoming Department of Transportation
5300 Bishop Blvd.
Cheyenne, WY 82009-3340
Phone: 307-777-4379
Fax: 307-777-4193
Email: tstark@missc.state.wy.us

Jeanette Lostracco
Carter & Burgess, Inc.
216 16th Street Mall, Suite 1700
Denver, CO 80202
Phone: 303-820-4808
Fax: 303-820-2401
E-mail: lostraccoJ@c-b.com

PROJECT CONTACTS:

Timothy Stark, PE
Environmental Services
Wyoming Dept. of Transp.
5300 Bishop Boulevard
Cheyenne, Wyoming 82009-3340
phone: 307-777-4379
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For more information or to request to be placed on the project mailing list, contact:

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Hoback Junction

A Wyoming Department of Transportation Project Newsletter

Hoback Junction Proposed Project Schedule

	2000				2001												2002									
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Scoping/Data Collection																										
Development of Alternatives																										
Evaluate Alternatives																										
Prepare Draft EIS																										
Public Review Period																										
Prepare Final EIS																										
Prepare Record of Decision																										
Public Meetings/Hearing (as needed)	☆											☆					☆							☆		
Interdisciplinary Team Meetings (as needed)		♦						♦			♦			♦									♦			
Newsletter (as needed)	▭		▭				▭						▭							▭			▭			

* Meeting dates to be scheduled

Hoback Junction

Newsletter #2

November 2000

Public Open House Scoping Meeting Held in Jackson

The Wyoming Department of Transportation (WYDOT) held a public open house scoping meeting on Wednesday, September 27, 2000. The purpose of the meeting was to answer questions and receive comments from the public regarding possible transportation improvements along US Highways 26/89/189/191 south of Jackson.

The meeting was attended by 74 members of the public. Numerous comments were received and recorded. The study area map on the following page displays comments associated with specific locations along the corridor.

Both the Jackson Hole News and the Jackson Hole Guide covered the meeting. Both papers reported that citizens at the meeting felt favorably toward some form of highway improvements along the project corridor.

Purpose and Need

Purpose and need elements identified prior to and after the scoping meeting include the following:

Purpose

- To improve safety
- To address current and predicted traffic volumes
- To provide better access control
- To identify bicycle and pedestrian facilities

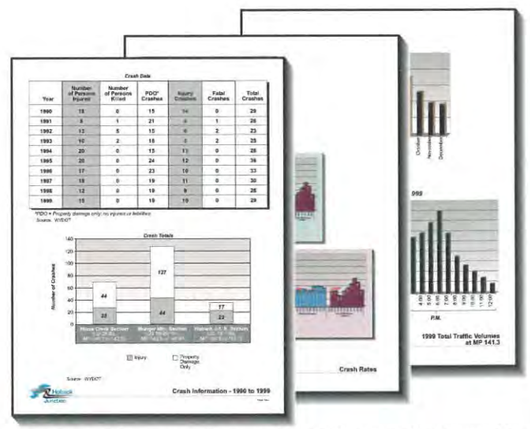
Need

- Deficient bridge at Hoback Jct./Snake River
- Deficient roadway shoulders
- Insufficient turn lanes
- Poor sight distances
- Poor pavement conditions
- Existing landslide conditions

September 27th Public Open House

Planning Process

The next steps for the project will include continued emphasis on public involvement. Future public open houses are planned throughout the transportation planning process, which will culminate in the preparation of an Environmental Impact Statement (EIS). These meetings will provide further opportunities to meet informally with project staff to ask questions and provide comments about the project.



Sample Graphics from September 27th Public Open House

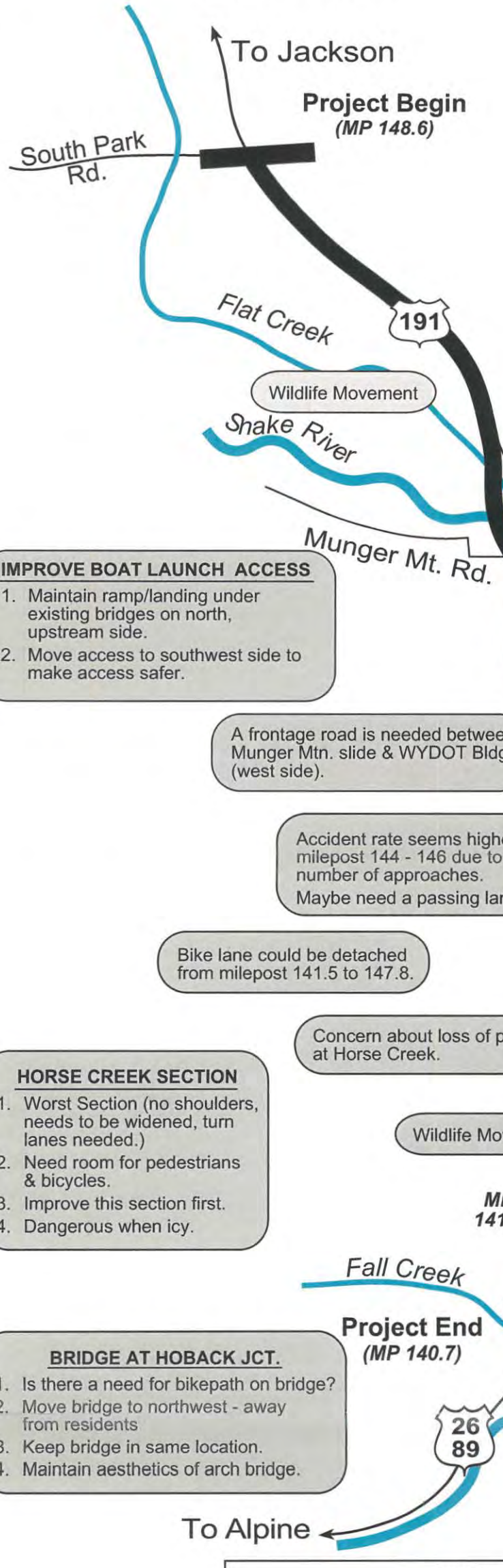
An Interdisciplinary Team will be organized with the purpose of providing advice from various agencies to WYDOT. The team will be composed of representatives from the public and local, state, and federal agencies and organizations and will meet five to ten times over the next two years.

The development of alternatives will soon be initiated and will include a full range of alternatives, including a No-Action alternative. Alternatives will be developed to meet the project purpose and need as well as address site specific and general comments received during the public involvement/agency scoping process.

Hoback Junction

Public Comments Received

9/27/00



ALTERNATIVE ROADWAY IMPROVEMENTS BASED ON NUMBER OF LANES*

Lanes	# Comments
2	3
2+ passing/turning	12
2+ accel/truck climbing	2
2+ frontage road	1
3	5
4	6
5	1

** not a statistical summary*

ALTERNATIVES TO ROADWAY IMPROVEMENTS

Develop options instead of roadway improvements, such as:

- lower speeds
- safety improvements
- transit options

TRUCKING COMPANY

1. Wider shoulders
2. Passing lanes
3. Truck climbing lanes

IMPROVE BOAT LAUNCH ACCESS

1. Maintain ramp/landing under existing bridges on north, upstream side.
2. Move access to southwest side to make access safer.

Concern with road moving closer to existing homes south of Swing Bridge (between river & road).

TYPICAL SECTION OPTIONS

1. Consider accel/decel lanes.
2. Shoulder for bikes, pedestrians and horses.
3. Guardrail where needed.
4. School bus turnouts.
5. Pull out at public land locations.

Henry's Road for detour when replacing bridges.

Turning lane needed between Henry's Road & Horse Creek Road.

A frontage road is needed between Munger Mtn. slide & WYDOT Bldg. (west side).

Horse Creek bridge to KOA needs at least a turning lane.

Accident rate seems higher between milepost 144 - 146 due to new number of approaches.
Maybe need a passing lane.

Bike lane could be detached from milepost 141.5 to 147.8.

Concern about loss of property at Horse Creek.

HORSE CREEK SECTION

1. Worst Section (no shoulders, needs to be widened, turn lanes needed.)
2. Need room for pedestrians & bicycles.
3. Improve this section first.
4. Dangerous when icy.

Wildlife Movement

HOBACK JCT. EAST SECTION

1. Bad curves & sight distances.
2. Bike lane is important.
3. Should have 2 lanes (one passing lane) to Bondurant.
4. Trucks back up due to steep grades.

BRIDGE AT HOBACK JCT.

1. Is there a need for bikepath on bridge?
2. Move bridge to northwest - away from residents
3. Keep bridge in same location.
4. Maintain aesthetics of arch bridge.

COMMENTS SPECIFIC TO THE HOBACK JUNCTION INTERSECTION AREA

GENERAL

1. Include turning lanes
2. Improve sight distances
3. Consider one-lane overpasses to move traffic through intersection
4. Mailboxes at Junction are close to road
5. Point store prefers one big approach vs. two small ones
6. Can excess ROW at Junction be dedicated as a community park?
7. Create a no "jake-brake" zone near Junction
8. Improve signage coming down to Junction – "stop sign" warning and "blind curve"

SPEED

1. Reduce speed to 25 or 30 mph at Junction
2. 65 mph is unsafe for Junction
3. Increased speed would hurt Hoback Junction businesses
4. Do not want a through route between Jackson and Alpine – would speed up traffic

INTERSECTION OPERATIONS

1. Traffic circle (roundabout)
2. T-intersection is safer
3. Regulate movements with a signal and signal timing
4. Would like a 3-way stop or stoplight at Junction

ROGER'S POINT NEIGHBORHOOD

1. Improve access to highway
2. Very dangerous and difficult access
3. Congestion makes it difficult to enter highway
4. Don't want to see additional traffic on road through the neighborhood to Astoria

Hoback Junction

Newsletter #3

June 2001

Public Meeting Announcement:

Thursday, June 14, 2001
5:00 to 7:00 p.m.

Brief Presentation at 5:30 p.m.
Fire Hall at Hoback Junction

WHERE WE HAVE BEEN:

A public scoping meeting was held in September 2000 where the public identified important issues regarding the roadway including:

- **Safety**
- **Existing Roadway Deficiencies**
- **Traffic Volumes & Characteristics**

WHERE WE ARE:

In the Environmental Impact Statement (EIS) Process:

WYDOT staff, in conjunction with the Interdisciplinary Team (ID Team), is developing the Purpose and Need data. This team includes representatives from the following:

ID TEAM

- **Bridger Teton National Forest**
- **Lincoln County**
- **Sublette County**
- **Business Representative**
- **Federal Highway Administration (FHWA)**
- **Carter & Burgess**
- **Wyoming Game & Fish Dept.**
- **Teton County**
- **Jackson Hole Conservation Alliance**
- **Wyoming Department of Transportation (WYDOT)**
- **Recreation Representative**

WHERE WE ARE GOING:

A public meeting to explain the latest developments regarding Purpose and Need, including :

- **Crash Locations (safety)**
- **Travel Demand**
- **Traffic Congestion**
- **Alternative Transportation Modes**
- **Existing Deficiencies (including pavement, bridge and shoulders)**
- **Landslides**

All of this information, together with input from the public, will be used to develop a preliminary set of alternatives. Refer to the updated project schedule on the back for more information.

PROJECT CONTACTS:

Timothy Stark, PE
Environmental Services
Wyoming Dept. of Transp.
5300 Bishop Boulevard
Cheyenne, Wyoming 82009-3340
phone: 307-777-4379
fax: 307-777-4193
tstark@state.wy.us

For more information or to request to be placed on the project mailing list, contact:

Jeanette Lostracco
Carter & Burgess, Inc.
216 16th Street Mall, Suite 1700
Denver, CO 80202
phone: 303-820-4808
fax: 303-820-2401
lostraccoj@c-b.com

Si usted quisiera recibir este boletín de noticias o una copia de otra información sobre el proyecto, llame por favor a Brann Greager, 720-359-3046.

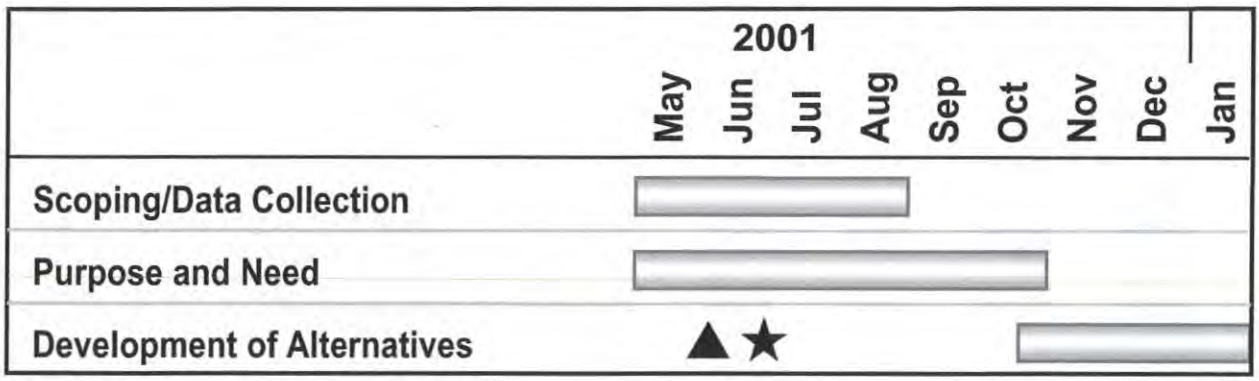
*In compliance with the Americans with Disabilities Act, this meeting location is accessible to disabled persons. For more information or for those who require accommodations for disabilities, call Wendy Wallach at 303-820-4807.

Carter & Burgess, Inc.
216 16th St. Mall, Suite 1700
Denver, CO 80202-5131

Hoback Junction

A Wyoming Department of Transportation Project Newsletter

Hoback Junction Proposed Project Schedule for 2001



▲ *Newsletter*

★ *Public Meeting*

AGENDA

Public Scoping Meeting
Hoback Junction EIS

June 14, 2001 5:00 p.m. to 7:00 p.m.

Brief Presentation at 5:30 p.m.

Fire Hall at Hoback Junction

1. **Purpose of meeting:**
   - Provide a description of the process
   - Obtain input on project issues
2. **Learn about the developments regarding Purpose and Need, such as:**
   - Crash Locations
   - Travel Demands
   - Traffic Congestion
   - Alternative Transportation Modes
   - Existing Deficiencies (including pavement, bridge and shoulders)
   - Landslides
3. **Please provide us with comments!**
   - Talk to a person wearing a nametag. They are here to answer your questions and take your comments.
   - Fill out comment sheets. Drop in comment box or mail in later.
   - Telephone, e-mail, mail or fax your comments:

Timothy L. Stark
Environmental Services Engineer
Wyoming Department of Transportation
5300 Bishop Blvd.
Cheyenne, WY 82009-3340
Phone: 307-777-4379
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Denver, CO 80202
Phone: 303-820-4808
Fax: 303-820-2401
E-mail: lostraccoJ@c-b.com

Carter:Burgess

Meeting Minutes

Project: **Hoback Junction**

Purpose: Public Meeting

Date Held: June 14, 2001

Location: Fire Hall at Hoback Junction

Attendees: See sign-in sheets

Copies: Jeff Weinstein (WYDOT); J. Lostracco, D. Bell, W. Wallach, File (C&B)

Summary of Discussion:

The meeting was held in the fire hall in an open house format. The purpose of the meeting was to explain the latest developments regarding Purpose and Need and provide an opportunity to solicit public input and address concerns. Twenty-nine members of the public attended the meeting.

There was a brief presentation made by Jeanette Lostracco, C&B, explaining remaining steps of the environmental process. Items she covered included:

- Completion of Data collection on Purpose and Need
- Consensus on purpose and need for the project
- Next Steps including development of the Alternatives
- Remaining schedule
- Additional opportunities for Public Involvement

A series of graphics depicting the most recent Purpose and Need data were on display easels in the fire hall. This included the following graphics:

- Automobile Crashes
- Vehicle/ Animal Collisions
- Historic and Future Annual Average Daily Traffic Volumes
- Level of Service Definitions- Rural Roadway Segments
- Current Level of Service by Segment
- Property Ownership
- Existing Roadway Laneage
- Typical Roadway Segments Adjacent to Project Area

- Shoulder Widths
- Roadway Grades
- Local Access
- Pavement Conditions
- Potential Landslide Areas
- Bicycle and Pedestrian Pathways
- Recreational Access Points

Comment Card Station

There was also a station provided for the public to post their comments. Please see attached.

The following is a summary of public comments submitted at the public meeting.

- Preserve and improve recreational accesses in the project area.
- Provide short-term parking areas for day recreational activities.
- Consolidate access roads near MP 142 into one access road.
- Provide pathways.
- Minimum of two lanes plus turning lane should be considered.
- More signage including "high traffic area" and "wildlife".
- Provide pedestrian/bicycle access at Munger Mountain and at Fall Creek.
- Add pedestrian access to all bridges.
- Traffic projection numbers seem low, especially with the development planned for Alpine and Daniels Junction.
- No turn lane at Riverfront Drive, potentially dangerous situation.
- Concern with impact to property value and noise if bridge were moved closer to my property on river near Hoback Junction.
- Hoback east segment has several problems including sight distance and "s" curves.
- Separated pathway preferred for bicycle and pedestrian use.
- Right turn at Hoback Junction to residential area is dangerous.
- Additional open space and park and recreation areas would make Hoback feel more like a "community."
- Want a 3-way stop at Hoback Junction.
- Sound barrier for trucks entering Hoback from Pinedale; jake brakes are noisy.
- Henry's Road pathway is great but something needed for other side.
- Hoback Resort is one of the last affordable places to stay in the area.

- Underpass needed at Game Creek road where bike path ends. Cyclists do not stop at the stop sign now.
- Concern wit how much private property will be impacted.
- Left onto Hoback Junction road is dangerous because there is no turn lane.
- Concern with potential removal of stop sign northbound from Alpine. Would mean traffic would travel faster from the bridge north.

Carter & Burgess, Inc.
216 16th Street Mall, Suite 1700
Denver, CO 80202-5131

Invitation to
Public Open House

For any special accommodations, (compliance with the Americans with Disabilities Act) call Wendy Wallach, Carter Burgess at 303-820-4807.

Si usted quisiera recibir este boletín de noticias o una copia de otra información sobre el proyecto, llame por favor a Brann Greager, 720-359-3046.

Hoback Junction

Environmental Impact Statement

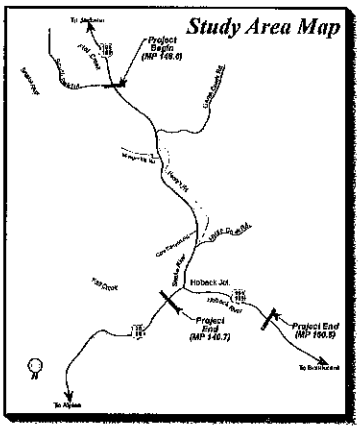
TUESDAY, DECEMBER, 4, 2001
Camp Creek Inn - 12330 South Hwy 191
5:30 pm - 7:00 pm
Brief Presentation at 6:00 pm

The purpose of the Open House is to provide an update the public. Representatives from WYDOT and its consultant will be present to discuss the project and answer questions.

Information that will be available:

- Project update
- Process and schedule for project
- On going data collection effort

Study Area Map



Project Contacts:

Timothy Stark, PE
Environmental Services
Wyoming Department of Transportation
5300 Bishop Boulevard
Cheyenne, Wyoming 82009-3340
phone: 307-777-4379

Jeanette Lostracco
Carter & Burgess, Inc.
216 16th Street Mall, Suite 1700
Denver, CO 80202
phone: 303-820-4808

PUBLIC MEETING AGENDA
Hoback Junction EIS

December 4, 2001 5:30 p.m. to 7:00 p.m.

Brief Presentation at 6:00 p.m.

Camp Creek Inn

Purpose of meeting:

- Update on project progress
- Obtain input on project issues

1. **The meeting is in an "Open House" format. Project personnel (wearing nametags) are present to answer questions and receive your comments. Below is some of the information being presented:**

   - EIS Process
   - Typical Section
   - Level-of-Service
   - Field data collection

2. **Please provide us with comments!**

   - Talk to a person wearing a nametag. Fill out comment sheets. Drop in comment box or mail in later.
   - Telephone, e-mail, mail or fax your comments:

Timothy L. Stark
Environmental Services Engineer
Wyoming Department of Transportation
5300 Bishop Blvd.
Cheyenne, WY 82009-3340
Phone: 307-777-4379
Fax: 307-777-4193
Email: tstark@missc.state.wy.us

Jeanette Lostracco
Carter & Burgess, Inc.
216 16th Street Mall, Suite 1700
Denver, CO 80202
Phone: 303-820-4808
Fax: 303-820-2401
E-mail: lostraccoJ@c-b.com

Carter Burgess

Meeting Minutes

Project: Hoback Junction EIS

Purpose: Public Meeting

Date Held: December 4, 2001

Location: Camp Creek Inn

Attendees: (see sign-in sheets)

Copies: Core Group, D. Bell, W. Wallach, File (C&B)

Summary of Discussion:

The meeting was held at the Camp Creek Inn in an open house format. The purpose of the meeting was to provide a project update, present on going data collection results and provide an opportunity to solicit public input and address concerns. Thirty-seven members of the public attended the meeting.

There was a brief presentation made by Jeanette Lostracco, C&B. Items she covered included:

- Update on Data collection that has been completed to date
- Introduction of Chuck James, WYDOT – for explanation of cross section
- Introduction of Paul Jones, WYDOT – for explanation of Level of Service
- Next Steps in the process including development of the Alternatives
- Remaining schedule
- Additional opportunities for Public Involvement

A series of graphics depicting the most recent Purpose and Need data were on display easels in the fire hall. This included the following graphics:

- Wildlife Crossings
- Elk Habitat and Migration Routes
- Bald Eagle Habitat
- Level of Service Definitions- Rural Roadway Segments
- Wetland and Levee Locations
- Noise Monitoring Locations
- Sound Level Comparisons
- Cross section Explanation

Comment Card Station - There was also a station provided for the public to post their comments.

The following is a summary of public comments submitted at the public meeting.

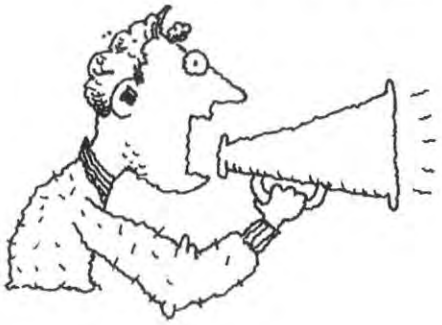
- Would like to see a combined use pathway, especially referencing horse use. Would like the ability to cross the Snake River with horses.
- Access to residences above Hoback Junction.
- Bridge safety at Hoback.
- Streetlights are too bright. Use hooded lights to keep the glare down.
- Steep side slopes.
- Pedestrian crossing at the junction.
- Need turn lanes into businesses.
- Thirty-Five to 40 mph speed limit at the junction.
- Animal crossing and road kills, contamination, diesel spills, staging area.
- Concerned about well (domestic) impacts at construction.
- Large trucks running stop sign.
- Using jake brakes – can we model noise?
- Courtesy sign not to use jake brakes.
- Landslides problems.
- Turn lanes used as passing lane.
- Increase speed limit.
- Visual impacts of road at the junction.
- Noise at the junction.
- Speed limit at the junction.
- T intersection at the junction through traffic.
- Alpine to Jackson.
- Information on Web site?
- Potential for recreation following projects.
- Noise levels and fill slopes.
- Narrower road is safer.
- Need for increased enforcement.
- Signage for passing lanes.
- Attend charette.
- Traffic problems just at rush hour.
- Concerns about speed limit.
- Who is going to pay?
- Two lanes and a passing lane.
- Three-lane center turning lane.
- Downhill to the stop sign is a problem.

- Horse Creek to Hoback needs bike path.
- Start bus to Hoback.
- Recreational access at survey bridge.
- Area needs to be preserved.
- Community wells between highway and 16 houses.
- JW Subdivision.
- Separate septic systems.
- Two wells at Hoback Junction are adjacent to the ROW. Concern about impacts to these. They are community water supply. Public water system with EPA number.
- It is important to consider animal crossings and animal/vehicle collisions. Call Cynthia Riegel to discuss wildlife data and data sharing.
- John McDaniel needs updates on the project. Would prefer a Web site to get information. (e-mail: JoMcDani@Wyoming.com)
- A Web site with current information and graphics (maps) that would be updated as information becomes available would be great.
- I would suggest a guardrail or some protection for the curve at Hoback Junction heading towards Pinedale. Three vehicles have gone over the curve and ended in our backyard since 1988.
- Four lanes are needed for the length of the project. Need alignment of the proposed road.

Hoback Junction

Newsletter #6

February 2003



Public Meeting Announcement:

Tuesday, February 18, 2003, 5:00 to 7:00 p.m.

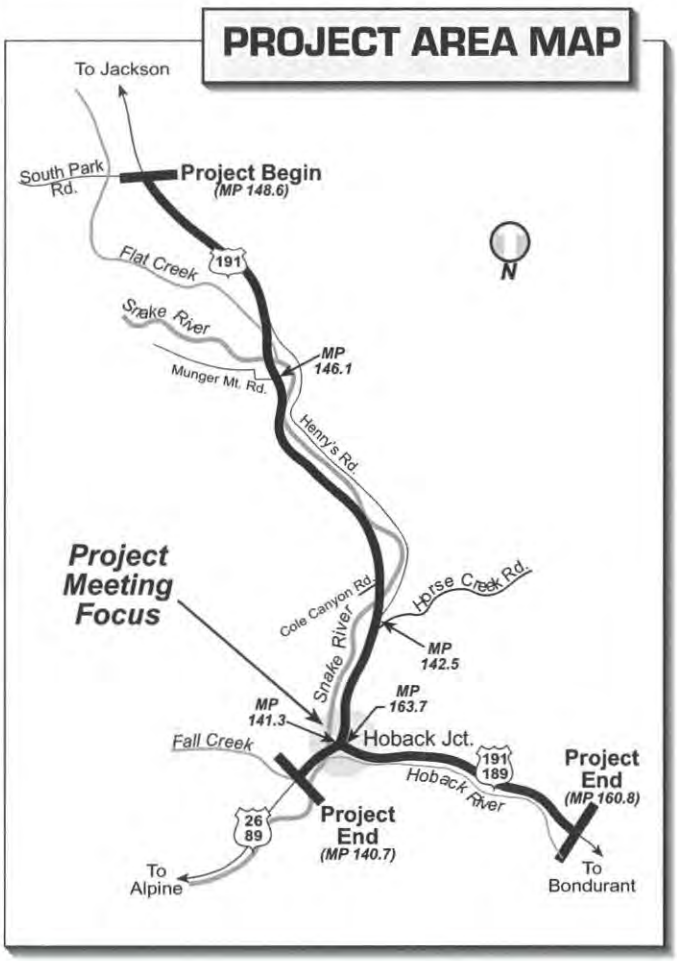
Brief Presentation at 5:30 p.m. and 6:30 p.m.

WYDOT Office
1040 Evans Road, Jackson

WHERE WE ARE:

In the Environmental Impact Statement (EIS) Process:

PROJECT AREA MAP



PURPOSE OF MEETING:

Evaluate the initial range of options and alternatives for compatibility with the purpose of this project. Receive feedback from the public on those options and alternatives.

This public meeting is focused solely on the Hoback Junction area, as shown highlighted on the map to the left.

PROJECT CONTACTS:

For more information or to request to be placed on the project mailing list, contact:

Timothy Stark, PE
Environmental Services
Wyoming Dept. of Transportation
5300 Bishop Boulevard
Cheyenne, Wyoming 82009-3340
phone: 307-777-4379
fax: 307-777-4193
timothy.stark@dot.state.wy.us

Jeanette Lostracco
Carter & Burgess, Inc.
707 17th Street, Suite 2300
Denver, CO 80202
phone: 303-820-4808
fax: 303-820-2401
lostraccoj@c-b.com

Si usted quisiera recibir este boletín de noticias o una copia de otra información sobre el proyecto, llame por favor a Brann Greager, 720-359-3046.

Carter & Burgess, Inc.
707 17th Street, Suite 2300
Denver, CO 80202

Hoback Junction

A Wyoming Department of Transportation Project Newsletter

PLEASE JOIN US!!!

Members of the project team will be present to listen to your concerns and answer your questions:

Tuesday, February 18, 2003 5:00 to 7:00 p.m.

Brief Presentation at 5:30 p.m. and 6:30 p.m.

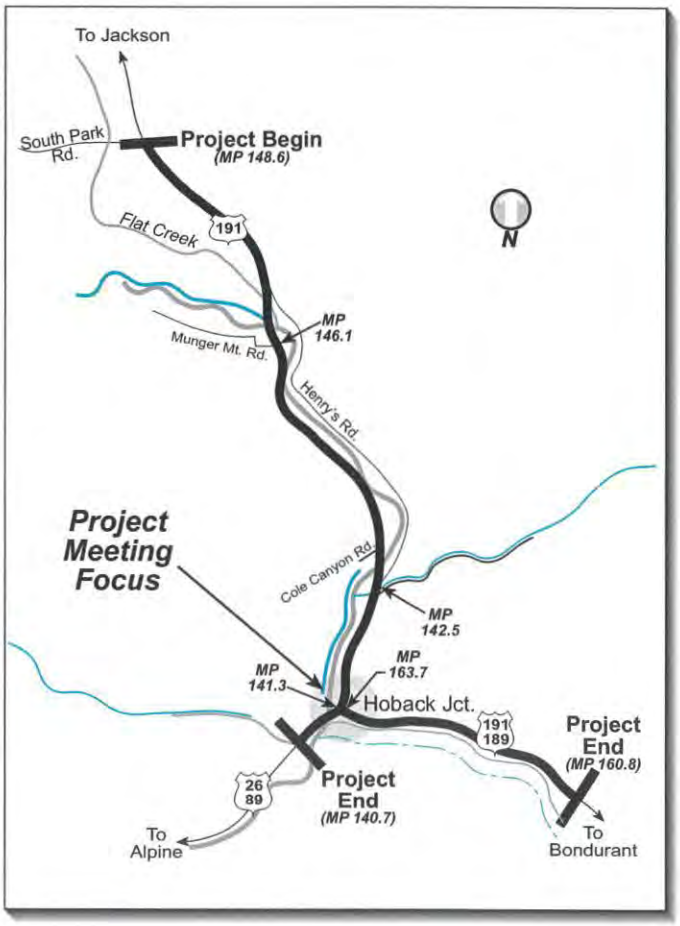
WYDOT Office
1040 Evans Road, Jackson

Interested parties may attend any time, at their convenience, during the scheduled hours.

*In compliance with the Americans with Disabilities Act, this meeting location is accessible to disabled persons. For more information or for those who require accommodations for disabilities, call Timothy Stark, WYDOT, at 307-777-4379.

HOBACK JUNCTION
Environmental Impact Statement
Public Meeting Announcement:
Tuesday, February 18, 2003, 5:00 to 7:00 p.m.
Brief Presentation at 5:30 p.m. and 6:30 p.m.
WYDOT Office
1040 Evans Road, Jackson

This meeting is focused solely on the Hoback Junction area, as shown highlighted on the map to the right.



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lostraccoja@c-b.com

AGENDA
Hoback Junction EIS
Public Meeting

February 18, 2003 5:00 p.m. to 7:00 p.m.

Purpose of this meeting: To present WYDOT recommendations on alternatives and options for the Hoback Junction area AND hear public comments on these recommendations.

Cross-Section Alternatives (3-Lane, 4-Lane and 5-Lane)
Recommendation- Advance the "3-Lane Alternative"

Frontage Road Options (Do minimum, 1 lane/1 way, 2 lane/2 way, and Combine approaches/ internal circulation)
Recommendation – Advance " Do minimum" and "Combine approaches/internal circulation"

Alignment Options (Parallel North, Diagonal North, Adjacent to Existing Bridge, Parallel South and Perpendicular to the River on the South)
Recommendation – Advance "Adjacent to Existing" and " Parallel South"

The **No Action** alternative will be advanced in all cases.

Format of Tonight's Meeting:

There will be two identical presentations, at 5:30PM and 6:30PM. Before and after each presentation, the meeting will be an open house format. This means you may talk one-on-one to project staff to express your comments or to ask questions.

Please provide us with comments!

- Talk to a person wearing a nametag. They are here to answer your questions and take your comments.
- Fill out comment sheets. Drop in comment box or mail in later.
- Telephone, e-mail, mail or fax your comments (see newsletter for contact information)

Hoback Junction

Hoback Junction EIS
Public Meeting
WYDOT Jackson Office
February 18, 2003

Minutes

Twenty-six people were in attendance. Sign-in sheets are attached. Written comments are summarized below. Actual comment sheets are attached.

Jeanette Lostracco explained that the focus of today's public meeting is the Junction and the recommended alternatives and options. She notified the public that the next public meeting will discuss the east segment. The process will then continue with evaluation of alternatives on the north segment.

Paul Jones of WYDOT explained the Hoback Junction cross-section alternatives. The 3-Lane Alternative is recommended to be advanced and the 4-lane divided and 5-Lane Urban are recommended to be dismissed.

Issues:

- Decide on speeds
- Curb and gutter slows speeds

Chuck James discussed Frontage Road options. He explained eliminations and reasons for eliminations. The recommended options to be advanced are the Do Minimum and the Combine Approaches, Encourage Circulation.

- Frontage roads are related to driver expectancy
- One way movements are dangerous

Sidewalks, bike paths, and landscaping are all carried forward.

Question: School bus stops?
Answer: Chuck: Mailboxes will be moved off the road. Same with buses.

Question: Three lanes plus frontage road—ROW required?
Answer: Four feet right-of-way remaining.

Question: Location of sidewalks?
Answer: Minimum five feet behind the curb.

Question: Sidewalks and bike paths?
Answer: Chuck: On both sides—could be combined.

Chuck discussed the Snake River Bridge Alignment. He explained the option recommendations. They are not looking at the north due to landslide. The Diagonal encroaches the slide and would require relocations. The Adjacent to Existing Bridge is the toughest for construction.

Question: On two options that were advanced, would the resort be relocated?
Answer: Chuck: Cannot tell without seeing the information.

Action Items:

- Mail Mark Hassler the three drawings
- Mailing drawings to David Wandenbert

Written Comments:

- Need two pedestrian tunnels under the highway.
- School bus turnaround. Pedestrian tunnel is needed.
- As the fishing business at the north end of Hoback Junction, on the east side of the existing Highway 89, I have a concern with the proposed removal of the northern most access from the Frontage Road to Highway 89.

  As a registered Wyoming business since 1990, and an owner of a commercially zones property at Hoback Junction, I have had business growth, in part due to good highway access.

  As a fishing business, boats and trailers are part of my required equipment.

  I need the access from my business to Highway 89 to remain where it is. This allows access and egress with vehicles towing boats and trailers, in a safe manner. The circulation of vehicles with trailers requires this access to remain. Also, are sidewalks really needed?

- I don't believe sidewalks are needed. The frontage roads can safely satisfy the small amount of pedestrian traffic.

  Plowing and snow removal are easier with just a frontage road to plow. A good crosswalk to connect Balsam Root store to Point store will satisfy foot traffic.

- Proposed speed limits through Hoback Junction? Stop sign at proposed "Y" for all travel directions. Sidewalks in Hoback Junction. Pedestrian underpass is excellent and a must-do. Need clearer picture re: frontage roads, pathways, sidewalks, etc. If frontage roads and travel lanes will not permit sidewalks, then you will be doing a huge disservice to the Hoback community. Sorry, misunderstood, no frontage road is good.

- For the record, I believe the decision to make the Jackson-Alpine leg the "through-route" is bad. Our best opportunity to control traffic speed would have been to introduce a stop sign to turn into this leg, while leaving the Pinedale-Jackson leg the through-route.

  This being said (and knowing this battle can't be won), I am very glad to see the preferred street section alternatives are the two- and three-lane versions with true curb and gutter construction. I wholeheartedly agree that wider sections would increase traffic speed regardless of speed limit posting (which is not what we want)!!

  The intersection of the Hoback south road is flawed, as drawn. It will be impossible to turn north off this road in the morning, once the stop sign is eliminated. It will be less dangerous than current to turn onto this road in the evening—even if a turn lane is provided. I would like to see different alignment alternatives explored, including connecting this road to the Pinedale leg and the preferred community solution, which connected this road to the west frontage road by going under the highway! In both of these alternatives there remains the potential to add a stop sign if it becomes necessary to allow traffic from Hoback south to enter the highway. The option shown precludes this opportunity forever, because of the proximity to the bridge.

- Definitely want positive change to the area. We think you are headed in an excellent direction. We support doing more rather than less. We look forward to sidewalks and bike paths. Also, the benefit of landscaping with the three-lane is apparent. Can't wait to be able to walk to the store. Also, roads are incredibly narrow (Hoback Junction Road) and need to be widened. Most importantly, all bridges need to be rebuilt, especially single-lane bridge. We hope that is included in the future improvement of Hoback Junction.

Hoback Junction

Newsletter #7

March 2003

HOBACK JUNCTION ENVIRONMENTAL IMPACT STATEMENT (EIS) ALTERNATIVES ANALYSIS UPDATE

PUBLIC MEETING MOVES HOBACK JUNCTION ALTERNATIVES FORWARD

Twenty-six members of the public reviewed and commented on alternatives and options for the Hoback Junction part of the Highway 26/89/189/191 project at a February 18th public meeting. The meeting was an open house format with two identical presentations by WYDOT. Forwarded for additional study were cross-section alternatives, options for frontage roads, and alignment options for the Snake River Bridge. The No Action is advanced with all alterntaives and options (See details below).

North Segment Alternatives Update

Recommendations for the North Segment Highways 26/89/189/191 from Hoback Junction to South Park Road were the subject of a public meeting in July 2002. Two alternatives, the 2-Lane Rural and the 4-Lane Divided, were dismissed. The remaining alternatives, including the 3-Lane Rural, the 4-Lane Undivided and the 5-Lane Rural, will continue to be evaluated along with the No Action Alternative.

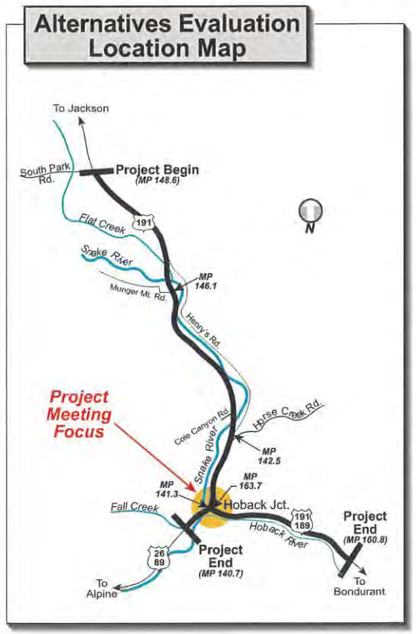
East Section Proposals Moving Forward

Alternatives for the East Section will be discussed at the next public meeting, which is yet to be scheduled. Look for an announcement of the meeting in upcoming newsletters.

WHERE WE ARE:

In the Environmental Impact Statement (EIS) Process:

HOBACK JUNCTION ALTERNATIVES AND OPTIONS



The cross-section alternatives, frontage road options, and bridge alignment options are based on varying criterion and indicators, as shown on Pages 2 and 3. Basic criteria include compatibility with plans and ability to meet future mobility needs, impacts to private property, construction-related traffic delays, impacts on the natural environment (wildlife and wetlands), and mitigation of potential landslide hazards.

There were four Cross-Section alternatives considered. The recommended 3-Lane Urban alternative that will be carried forward will improve traffic operations at the intersection, is fully compatible with Teton County plans and the Charrette Report, and improves safety and efficiency at the intersection.

Three options, including the No Action Alternative, were carried forward from the five original Frontage Road options. Both the Do Minimum and Combine Approaches/ Encourage Circulation options retain internal circulation and avoid impacts to the right-of-way, and both were carried forward. Both options include a separated sidewalk and a crosswalk at the intersection of Hwy. 189/191 (the Hoback leg) with the mainline leg north to Jackson.

Detailed review and analysis resulted in two of six Snake River Bridge Alignment options being carried forward. The recommendations are the Adjacent to Existing Bridge and the Parallel South (of the existing bridge) options.

For detailed descriptions of the project to date, please contact WYDOT or Carter & Burgess for copies of previous newsletters.

UPCOMING STEPS:

Alternatives for the East Section, 189/191 to Bondurant, will be discussed at the next public meeting, which has not yet been scheduled. Watch for upcoming newsletters announcing the dates of future meetings.

PROJECT CONTACTS:

For more information or to request to be placed on the project mailing list, contact:

Timothy Stark, PE
Environmental Services
Wyoming Dept. of Transportation
5300 Bishop Boulevard
Cheyenne, Wyoming 82009-3340
phone: 307-777-4379
fax: 307-777-4193
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Carter & Burgess, Inc.
707 17th St, Suite 2300
Denver, CO 80202-5131

ALTERNATIVES ADVANCED

The ID Team reviewed the evaluation of alternatives and options and concurred with the recommendations. These options and alternatives will be advanced in the preparation of the Draft EIS.

CROSS SECTIONS

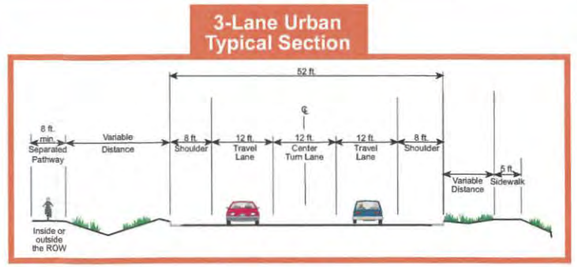
No Action

Indicator Ranking	
Unacceptable	• Level of Service will continue to deteriorate at intersection
Unacceptable	• Not compatible with Plans, does not meet future mobility needs
Excellent	• No private property impacts
Excellent	• No impacts to the natural environment
Unacceptable	• Increase to crash potential

No Action
Advanced

3-Lane Urban

Indicator Ranking	
Good	• Intersection Operation Level of Service would be improved
Good	• Fully compatible with Teton County plans and Charette Report, meets future mobility needs
Good	• One private property impact anticipated
Fair	• Moderate short term and long term impacts to natural environment
Good	• Improved safety and efficiency at intersection would reduce crash rate



3-Lane Urban
Recommendation:
Advanced

BRIDGE ALIGNMENTS

No Action

Indicator Ranking	
Unacceptable	• Not compatible with plans, will not meet future mobility needs
Excellent	• No private property impacts
Excellent	• No construction impacts
Excellent	• No impacts to natural environment
Poor	• Does not address landslide hazards, safety not improved

No Action
Advanced

Alignment Option 3 - Adjacent to Existing Bridge

Indicator Ranking	
Excellent	• Compatible with plans, will meet future mobility needs
Excellent	• No private property impacts
Poor	• Extensive construction phasing required, moderate delay anticipated
Excellent	• No impacts to natural environment
Fair	• Moderate landslide repair required before safety is improved

Adjacent to Existing Bridge
Recommendation:
Advanced

Alignment Option 4 - Parallel South

Indicator Ranking	
Excellent	• Compatible with plans, will meet future mobility needs
Fair	• One private property impact anticipated
Good	• Minimal construction delay anticipated
Good	• No impacts to wildlife habitat; wetland impacts anticipated
Excellent	• Minimal landslide repair anticipated before safety is improved

Parallel South
Recommendation:
Advanced

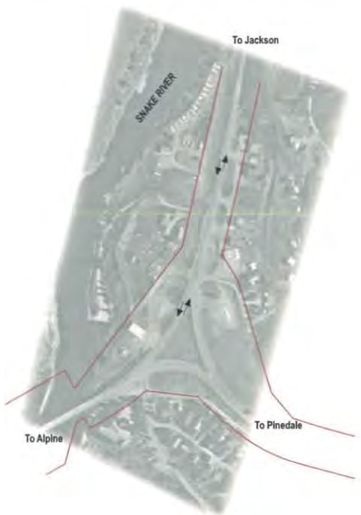
Legend:
- Curb and Gutter
- Centerline
- Retaining Wall/Bridge
- Edge of Roadway
- Landslide
- Wetlands

N

FRONTAGE ROAD OPTIONS

No Action

Indicator Ranking	
Poor	• Incompatible with plans, no improvement to access
Excellent	• No impacts to Right-of-Way
Fair	• No improvement to existing access configuration
Fair	• Safety not improved, no improvement to potential conflict points



No Action
Advanced

Option A - Do Minimum

Indicator Ranking	
Poor	• Incompatible with plans, no improvement to access
Excellent	• No impacts to Right-of-Way
Fair	• No improvement to existing access configuration
Fair	• Safety not improved, no improvement to potential conflict points

Do Minimum
Recommendation:
Advanced

Option D - Combine Approaches, Encourage Circulation

Indicator Ranking	
Good	• Compatible with plans, consolidates access
Excellent	• No impacts to Right-of-Way
Excellent	• Reduces access, retains circulation
Good	• Controls Access, reduces internal speeds, improves safety

Combine Approaches, Encourage Circulation
Recommendation:
Advanced

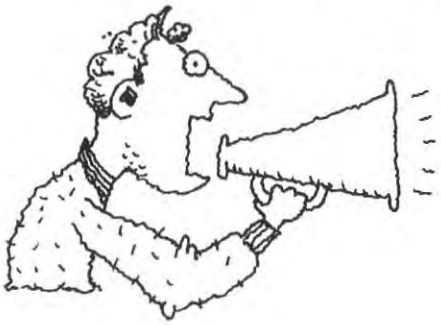
Legend:
- Curb and Gutter
- Center Line
- Sidewalk
- Close Access
- Edge of Roadway
- Right-of-Way

N

Hoback Junction

Newsletter #8

July 2003

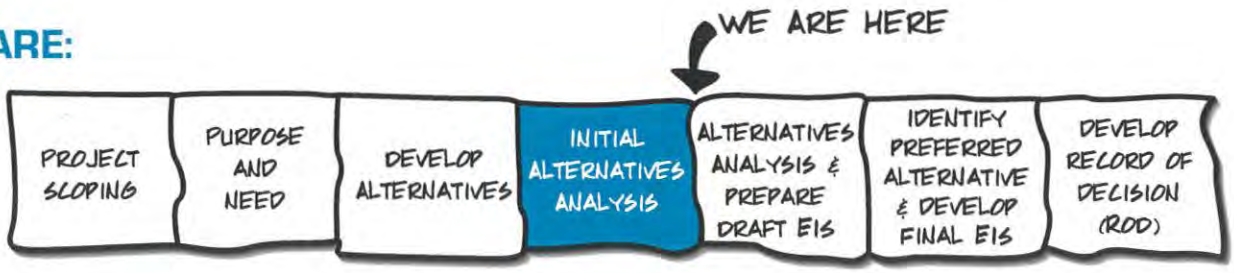


Open House Announcement:

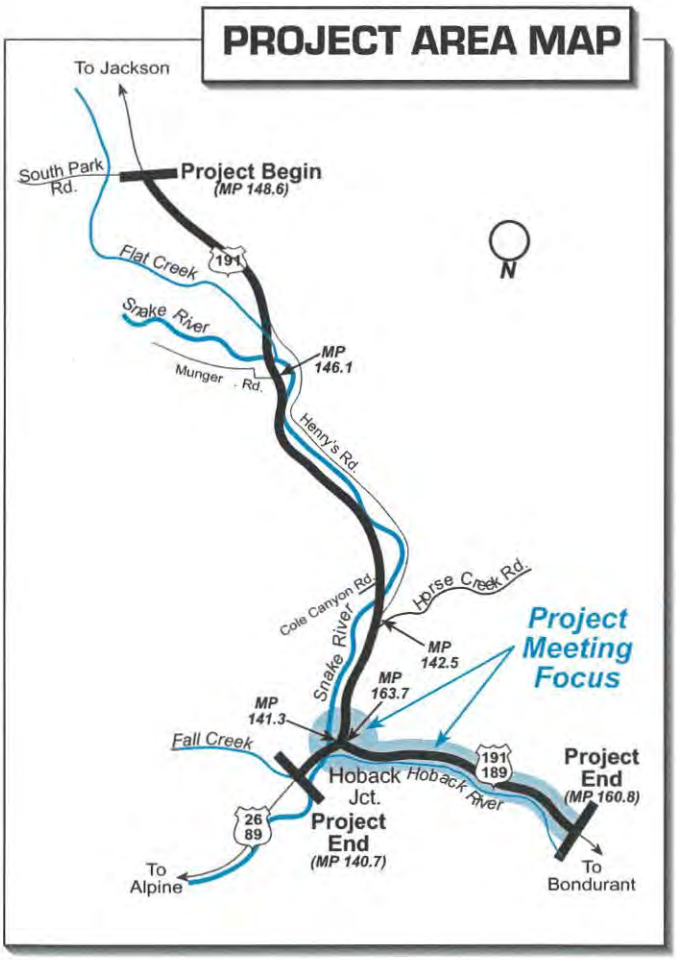
Tuesday, August 5, 2003, 5:30 to 7:30 p.m.
Hoback Fire Station
Hoback Junction

WHERE WE ARE:

In the Environmental Impact Statement (EIS) Process:



PROJECT AREA MAP



PURPOSE OF OPEN HOUSE:

To present alternatives for the Hoback Junction area and the segment from Hoback Junction east on Highway 189/191 to Bondurant. The east section to Bondurant is approximately 3 miles.

The Open House will not include a formal presentation. We encourage you to review the graphics and basic information presented. The project team will be available to answer questions and to receive feedback.

PROJECT CONTACTS:

For more information or to request to be placed on the project mailing list, contact:

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Hoback Junction

A Wyoming Department of Transportation Project Newsletter

PLEASE JOIN US!!!

Members of the project team will be present to listen to your concerns and answer your questions:

Tuesday, August 5, 2003, 5:30 to 7:30 p.m.
Hoback Fire Station
Hoback Junction

Interested parties may attend anytime, at their convenience, during the scheduled hours.

* In compliance with the Americans with Disabilities Act, this meeting location is accessible to disabled persons. For more information or for those who require accommodations for disabilities, call Timothy Stark, WYDOT, at 307-777-4379.

AGENDA
Hoback Junction EIS
Open House – Public Meeting
August 5, 2003 5:30 p.m. to 7:30 p.m.

Purpose of this meeting:

- To present alternatives and options advanced and dismissed for the Hoback Junction area.
- To present alternatives advanced for the East Segment of Highway 89/191 toward Bondurant, and to gather public comments on these alternatives.

Format of Tonight's Meeting:

The Open House will NOT include a formal presentation. We encourage you to review the graphics and information presented. The project team is available for you to talk one-on-one and to express your comments or ask questions.

The Open House graphics are separated into **three** stations in the room; 1) A map of the study area, 2) Hoback Junction Alternatives and Options, and 3) East Segment alternatives.

Please provide us with comments!

- Talk to a person wearing a nametag. They are here to answer your questions and take your comments.
- Fill out comment sheets. Drop in the comment box or mail in later.
- Telephone, e-mail, mail or fax your comments (see newsletter for contact information)

Hoback Junction

MINUTES
HOBACK JUNCTION
ENVIRONMENTAL IMPACT STATEMENT
PUBLIC MEETING

Tuesday, August 5, 2003
5:30 p.m. to 7:30 p.m.
Hoback Fire Station

SUMMARY
The sixth public meeting for the Hoback Junction Environmental Impact Statement was held on August 5, 2003 at the Hoback Fire Station in Teton County, Wyoming. Thirty-three (33) people attended the sixth public meeting (sign in sheets attached). The meeting was an open house format from 5:30 to 7:30 p.m. No formal presentation was given at this public meeting. Comments were received from the public a number of ways: 1) personal comments given to project officials on 5 x 8 cards, and/or 2) written comments dropped in a comment box located at the comment table. Project officials were available throughout the evening to answer questions, receive comments, and talk with the public regarding concerns, questions, and comments they had regarding the project.

Project officials present:

Matt Carlson, WYDOT
Jeff Weinstein, WYDOT
Tony Laird, WYDOT
Mark Falk, WYDOT
Chuck James, WYDOT
Ray Bromagen, WYDOT
Jeff Brown, WYDOT
Paul Jones, WYDOT
Pete Hallsten, WYDOT
Jeanette Lostracco, Carter & Burgess
Lindsey Royce, Carter & Burgess

Sign-In Table

The following handouts were available to the public at the sign-in table:

- Agenda
- Alignment graphics
- Comment Sheets
- Newsletters

Graphic Displays

Graphic displays on easels explaining the project were available for public viewing as follows:

- Where we Are
- Project Study Area
- Junction Cross Section
- Frontage Road Options
- Alignment over Snake River Options
- Advanced Alignment Options
- Traffic Graphics
- Existing Noise Measurements
- Noise Aerial Photograph
- East Segment Alignment

COMMENTS WRITTEN ON COMMENT SHEETS

- **Joe Di Prisco:** I have concerns about the highway and turn into the Riverfront Subdivision. It is extremely dangerous now. A three-lane may not be any safer. If a car is stopped waiting to turn in and an oncoming car is in the center lane, it could easily result in an accident. We do need some type of turning lane though.

- **Bruce E. Peterson:** My concern is that the parallel south proposal will be too close to the J-W Drive Subdivision. The adjacent proposal is much better for the subdivision.

- **Steve Whisenand:** If you are really concerned about what we say, take notes. Not one of you is listening or noting what we say. Your plan for the Hoback Junction Road is dangerous and irresponsible.

VERBAL COMMENTS RECEIVED (WRITTEN ON INDEX CARDS)

- **Jill Walsh and Brian Harnish:** Call in September, too busy to stay at meeting and get more information about the plan at the junction. She lives close by and is concerned about impacts to her property—doesn't want to move. She hears there are plans that could negatively affect her. She lives in a subdivision close to the fire station. **(ACTION ITEM)**

- **Allen Saunders:** Would like to see a bridge in the adjacent configuration. Aesthetics of the existing bridge and area of cabins. Noise may be a problem with the south option for the bridge. Trees are good buffer.

- **Mike Walsh:** Do away with "landscaping opportunities" (water, trash, sight distance). Motorized vehicles allowed on paths and in right-of-way.

- Safer access now with current configuration than with the proposed "T" intersection. With "T", trucks will blow through the stop sign in ice conditions and crash into the fire station.

- Would a traffic light make it safer than a stop sign (at the Pinedale stop)?

- Is the landslide on the east segment worse than the Deer Creek landslide?
  Yes, roughly double the size.

- Anchors that could be used for into the slide (east segment) are about 225 feet. This may not be long enough to hit the bedrock and stabilize the slide.

- Concerned about noise impacts if the road moves closer to my house at Bar J-W Subdivision.

- Would like to see turn lanes in the area of Bar J-W Subdivision.
  Note: This is accommodated with the three-lane cross section.

- Concerned about noise impacts to my house at site #10 on the noise monitoring location map. Trucks are very noisy.

- Concerns: safety, noise, turning problems, jake brakes, bridge moving closer.
  Views: rebuild the bridge at the current location. Prefer shoulders on the bridge.

- Concerned about the segment west of the bridge at Hoback over Snake River. Has many curves that have not been accounted for in the current bridge alignment design. Think the current alignment will not work.

Hoback Junction

Newsletter #9

September 2003

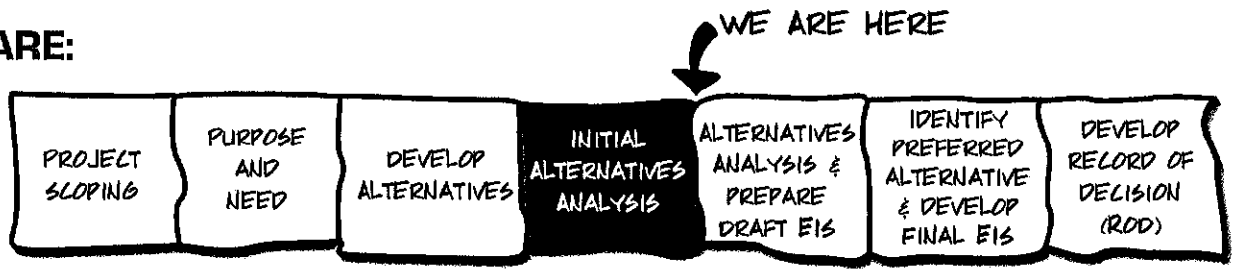
AUGUST 5TH PUBLIC MEETING SUMMARY

The sixth public meeting for the Hoback Junction Environmental Impact Statement was held on Tuesday, August 5, 2003 at the Hoback Fire Station. The purpose of the meeting was to present alternatives for the Hoback Junction area and a 3-mile segment of Highway 189/191 from Hoback Junction east towards Bondurant. The meeting was an Open House format; no formal presentations were given. Thirty-three members of the public attended and eleven project officials, including staff from WYDOT and Carter & Burgess were present to answer questions.

Meeting graphics displayed alternatives advanced at the Junction and on the East leg to Bondurant. Junction alternatives included options for the roadway cross section, frontage roads and the alignment of the Snake River Bridge. East Segment alternatives included both an on-alignment and an off-alignment alternative. The off-alignment would cross the Hoback River to avoid the active landslide located beneath Highway 189/191. All of the remaining alternatives are being advanced for more detailed evaluation in the Draft Environmental Impact Statement.

WHERE WE ARE:

In the Environmental Impact Statement (EIS) Process:

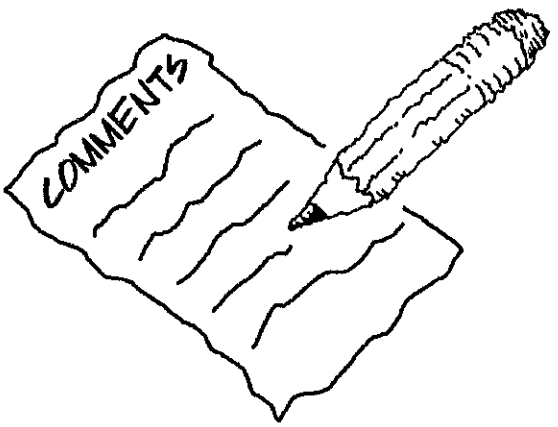


WRITTEN COMMENTS ENCOURAGED!

A Comment Sheet is enclosed. We encourage you to mail in any written comments.

All information displayed at the August 5th Open House is available for review during normal business hours at the WYDOT Office, 1040 Evans Road, Jackson.

Refer to the WYDOT website, http://dot.state.wy.us (under Public Meeting Schedule), to view previous newsletters which describe the project steps and alternatives advanced or dismissed.



PROJECT CONTACTS:

For more information or to request to be placed on the project mailing list, contact:

Timothy Stark, PE
Environmental Services
Wyoming Dept. of Transportation
5300 Bishop Boulevard
Cheyenne, Wyoming 82009-3340
phone: 307-777-4379
fax: 307-777-4193
timothy.stark@dot.state.wy.us

Jeanette Lostracco
Carter & Burgess, Inc.
707 17th Street, Suite 2300
Denver, CO 80202
phone: 303-820-4808
fax: 303-820-2401
lostraccoja@c-b.com

Si usted quisiera recibir este boletín de noticias o una copia de otra información sobre el proyecto, llame por favor a Brann Greager, 720-359-3046.

Carter & Burgess, Inc.
707 17th Street, Suite 2300
Denver, CO 80202

Hoback Junction

A Wyoming Department of Transportation Project Newsletter

PROJECT INFORMATION

In addition to contacting the persons above, refer to the following sources for more information:

Previous Newsletters: http://dot.state.wy.us

August 5th Open House Graphics

(Available at the WYDOT-Jackson Office-1040 Evans Road)

Appendix C
Agency Coordination

US.Department
of Transportation
Federal Highway Administration

Wyoming Division

2617 East Lincolnway, Suite D
Cheyenne, WY 82001-5671

August 9, 2007

Mr. John F. Cox, Director
Wyoming Department of Transportation
5300 Bishop Boulevard
Cheyenne, Wyoming 82009-3340

Subject: Project Nos. N104006, N104066, and N133005, Afton-Jackson Road, Hoback Junction-Jackson Road (Snake River Section), and Daniel Junction-Hoback Junction (Hoback Junction East Section), Teton County

Dear Mr. Cox:

We have received and approve your Department's proposal dated June 14, 2007 to modify the limits of the subject Hoback Junction Environmental Impact Statement published in the Federal Register in August 2000 to include only the 7.2 mile segment of US 26/89/189/191 from Hoback Junction to 6.1 miles south of Jackson (Hoback North). It is anticipated the 2.9 mile segment of US 189/191 from Hoback Junction east (Hoback East) will be evaluated at a future date under a separate EIS. The 0.6 mile segment of US 26/89 through Hoback Junction (Hoback Junction) and crossing the Snake River and tying to an improved roadway section to the southwest is anticipated to be evaluated under an Environmental Assessment.

During project scoping and through public meetings, it became clear the three segments have differing needs and result in significantly different alternatives. In addition, the level of controversy for the solutions differs among the segments due to their impacts to the resources. One other contributing factor in deciding to separate the three distinct segments was the time frames proposed for construction. Ultimately, the basis of approval is that each of the three segments has logical termini and independent utility.

Hoback East has been the most controversial due the potential impacts to the natural environment of the alternatives currently being evaluated. Public and agency input to date are not fully supportive of the proposed alternatives for landslide correction or avoidance and recommend additional alternatives and analysis. Since construction is not proposed until fiscal year 2014, delay of this segment would allow for additional analysis. In addition, the potential impacts associated with this segment are contained within the segment limits; the segment ties into a two-lane highway to the east and to US 26/89 at Hoback Junction. As a result, the foreseeable alternatives will not restrict consideration of alternatives on adjacent segments; therefore, it is determined that Hoback East has independent utility and can be evaluated as a separate project.

Hoback Junction has been one of the least controversial segments, but one with the greatest immediate needs: replacement of the deficient bridge over the Snake River and modification of the US 26/89, US 189/191, and US 26/89/189/191 intersection. The proposed improvements to Hoback Junction will tie into the recently completed two-lane reconstruction of the Snake River Canyon section to the southwest, the two-lane roadway east of Hoback Junction, and the current two lane segment to the north. The proposed improvements at the Junction retain essentially the existing roadway alignment and address the deteriorating structure, intersection deficiencies, geometric deficiencies, and include operational improvements with the addition of standardized shoulders and a center turn lane, but do not increase the number of through travel lanes; therefore it is determined the Hoback Junction segment can function independently without requiring improvement or modification of the adjacent roadway segments. Based on this information, it is determined that Hoback Junction also has independent utility.

Hoback North primarily addresses highway capacity needs and includes proposed alternatives for capacity improvements and includes construction of two Snake River crossings, two landslide areas, potential archeological impacts, and potential wetland impacts. The proposed alternatives for Hoback North will tie into the recently completed five-lane section south of Jackson, and will follow essentially the existing roadway alignment. Alternatives under consideration will not require additional improvements or modification to the recently completed five-lane section south of Jackson or restrict consideration of alternatives at Hoback Junction since capacity is not the primary need at Hoback Junction. Therefore, Hoback North is determined to have independent utility.

We do not anticipate the need for additional scoping for Hoback Junction or Hoback North, but defer the need for additional scoping for Hoback East. In addition, it has been determined that Hoback North will not follow the requirements listed in Section 6002, SAFETEA-LU due to the active development of the EIS since publishing the NOI in August 2000. However, we do anticipate the issuance of a revised NOI modifying the limits under study to include the Hoback North Segment.

Sincerely yours,

Philip E. Miller
Division Administrator

cc:
Jeff Weinstein, Environmental Program Manager, WYDOT
Jeanette Lostracco, Carter & Burgess, Inc., Denver, CO
File: N104066

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
5353 Yellowstone Road, Suite 308A
Cheyenne, Wyoming 82009

In Reply Refer To:
ES-61411/W.39/WY0710308

JUL 11 2007

Mr. Jeff Weinstein, Environmental Coordinator
Wyoming Department of Transportation
5300 Bishop Blvd.
Cheyenne, Wyoming 82009

Dear Mr. Weinstein:

Thank you for your letter of June 13, 2007, and accompanying biological assessment, regarding the reconstruction of U.S. Highways 29 and 89 in Teton County, Wyoming. The proposed project includes reconstructing 0.64 miles of the highway, including a bridge over the Snake River and the intersection at Hoback Junction. Associated activities include landslide stabilization and wall construction. You are requesting concurrence under the Endangered Species Act of 1973 (Act), as amended (50 CFR 402.13) with your determination of "may affect, not likely to adversely affect" for the bald eagle (*Haliaeetus leucocephalus*) and the grizzly bear (*Ursus arctos horribilis*). Your determination for the bald eagles is based on the construction activities occurring greater than 0.5 miles from the Hoback nest, and the demonstrated tolerance of this pair to disturbance, particularly transportation activities. Your determination for grizzly bears is based on the low probability that bears would use the area due to the high levels of human activity within the project area. You have also made a no effect determination for the Canada lynx (*Lynx canadensis*) and a no jeopardy determination for the gray wolf (*Canis lupus*).

The U.S. Fish and Wildlife Service (Service) believes that sufficient information was provided to determine that the proposed project, as described, will not adversely affect the bald eagle based on the distance from the project and the demonstrated tolerance to disturbance by this pair. On March 29, 2007, the Service published a Federal Register notice (72 FR 14865) announcing that the Yellowstone Distinct Population Segment (DPS) of grizzly bears is a recovered population that no longer meets the definition of threatened or endangered under the Act. Therefore, consultation on this species is no longer required. Concurrence from the Service is not required for "no effect" or "no jeopardy" determinations, but we appreciate receiving a copy of the data used to make that determination for our records.

This project should be re-analyzed if new information reveals effects of the action that may affect listed or proposed species or designated or proposed critical habitat in a manner or to an extent not considered in this consultation; if the action is subsequently modified in a manner that causes an effect to a listed or proposed species or designated or proposed critical habitat that was not considered in this consultation; and/or, if a new species is listed or critical habitat is designated that may be affected by this project.

We appreciate your efforts to ensure the conservation of listed species. If you have further questions regarding our comments or your responsibility under the Act on this subject, please contact Pat Deibert of my staff at the letterhead address or phone (307) 772-2374, extension 226.

Sincerely,

Brian T. Kelly
Field Supervisor
Wyoming Field Office

cc: WGFD, Non-Game Coordinator, Lander (B. Oakleaf)
WGFD, Non-Game Biologist, Jackson (S. Patla)
WGFD, Statewide Habitat Protection Coordinator, Cheyenne (V. Stelter)

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
5353 Yellowstone Road, 308A
Cheyenne, Wyoming 82009

In Reply Refer To:
ES-61411/W.17 /WY06SL0249

SEP 1 8 2006

Jeff Weinstein
Wyoming Department of Transportation
5300 Bishop Boulevard
Cheyenne, WY 82009-3340

Dear Mr. Weinstein:

Thank you for your letter of August 16, 2006, received by our office on August 17, requesting an updated species list for the potential reconstruction of U.S. Highways 26/89/191, south of Jackson, Wyoming. In response to your request, the U.S. Fish and Wildlife Service (Service) is providing you with information on threatened and endangered species and migratory birds. The Service provides recommendations for protective measures for threatened and endangered species in accordance with the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Protective measures for migratory birds are provided in accordance with the Migratory Bird Treaty Act (MBTA), 16 U.S.C. 703 and the Bald and Golden Eagle Protection Act (BGEPA), 16 U.S.C. 668.

Endangered Species

The following threatened or endangered species may occur in Teton County and have the potential to occur within the proposed project area. If you determine that the proposed project may affect a listed species, please contact our office to discuss consultation requirements under the Act.

Species	Status	Habitat
Bald eagle (*Haliaeetus leucocephalus*)	Threatened	Found throughout state
Canada lynx (*Lynx canadensis*)	Threatened	Montane forests
Gray wolf (*Canis lupus*)	Experimental	GreaterYellowstone ecosystem
Grizzly bear (*Ursus arctos horribilis*)	Threatened	Montane areas

Bald eagle: While habitat loss and human disturbance remains a threat to the bald eagle's full recovery, most experts agree that its recovery to date is encouraging. Adult eagles establish life-long pair bonds and build large nests in the tops of large trees near rivers, lakes, marshes, or other wetland areas. During winter, bald eagles gather along open water to forage and night roost in large mature trees, usually in secluded locations that offer protection from harsh weather. Bald eagles often return to use the same nest and winter roost year after year. Because bald eagles are particularly sensitive to human disturbance at their nests and communal roosts, protective buffers should be implemented around these areas [Buehler et al. 1991, Greater Yellowstone Bald Eagle Working Group (GYBEWG) 1996, Montana Bald Eagle Working Group (MBEWG) 1994, Stalmaster and Newman 1978, U.S. Fish and Wildlife Service (USFWS) 1986].

In Wyoming, bald eagle nest buffer recommendations include avoiding project-related disturbance and habitat alteration within 1 mile of bald eagle nests. The nesting season occurs from February 1 to August 15 and bald eagle nest buffers should receive maximum protection during this time period. For some activities (construction, seismic exploration, blasting, and timber harvest), a home range buffer may include potential foraging habitat for 2.5 miles from the nest (GYBEWG 1996). We recommend that you contact the Service to determine the potential impact of your activity to nesting bald eagles if your project will cause disturbance within one of these nest buffer areas.

A communal roost is defined as an area where six or more eagles spend the night within 100 meters (328 feet) of each other (GYBEWG 1996). For bald eagle communal winter roosts, we recommend that disturbance be restricted within 1 mile of known communal winter roosts during the period of November 1 to April 1. Additionally, we recommend avoiding disturbance and habitat alteration within 0.5 mile of active roost sites year round.

Disturbance sensitivity of roosting and nesting bald eagles may vary between individual eagles, topography, density of vegetation and intensity of activities. The buffers and timing stipulations, as described above, should be implemented unless site-specific information indicates otherwise (Stalmaster and Newman 1978, USFWS 1986). Modification of buffer sizes may be permitted where biologically supported and in coordination with the Service.

Canada lynx: The Service published a Final Rule in the Federal Register on March 24, 2000 (65 FR 16052) listing the Canada lynx in the contiguous United States as threatened. Historically, lynx were observed in every mountain range in the state. Concentrations of observations occur in western Wyoming in the Wyoming and Salt River ranges and continuing north through the Tetons and Absaroka ranges in and around Yellowstone National Park. Numerous records have also come from the west slope of the Wind River Range, with fewer observations in the Bighorn and Uinta mountains (Reeve et al. 1986). In Wyoming, the lynx lives in subalpine/coniferous forests of mixed age and structural classes. Mature forests with downed logs and windfalls provide cover for denning sites, escape, and protection from severe weather. Early to mid successional forest with high stem densities of conifer saplings provide optimal habitat for the lynx's primary prey, the snowshoe hare. Snowshoe hare-reach their highest densities in regenerating forests that provide visual cover from predators and thermal cover (Wolff 1980,

Litvaitis et al. 1985). It is likely that winter, when food is less abundant and less nutritious and energy demands are higher, is the limiting season for snowshoe hares (Pietz and Tester 1983). To most benefit lynx, habitats should retain an overstory for concealment and forested connectivity between feeding, security, and denning habitats.

The Service has identified significant threats to the lynx including (1) loss and/or modification of habitat; (2) past commercial harvest (trapping), which is partially responsible for the extremely small lynx population; (3) inadequate regulatory mechanisms to protect lynx and their habitat; and (4) other factors such as increased human access into suitable habitat and human-induced changes in habitat allowing other species (e.g., bobcats and coyotes) to move into lynx habitat and compete with them. Examples of human alteration of forests include loss of and conversion of forested habitats through urbanization, ski area and other developments; fragmentation that leads to isolation of forested habitats by highways or other major construction; and certain timber harvesting practices and fire suppression measures.

Gray wolf: All wolves within Wyoming are now considered part of the nonessential experimental population. Although such wolves remain listed and protected under the Act, additional flexibility is provided for their management under the provisions of the final rule and special regulations promulgated for the nonessential experimental population on November 22, 1994 (59 FR 60252). Requirements for interagency consultation under section 7 of the Act differ based on the land ownership and/or management responsibility where the animals occur. On any unit of National Park System or National Wildlife Refuge System lands, wolves that are part of the experimental population are considered a threatened species and the full provisions of section 7 apply. Thus, the Service and any other action agency is prohibited from authorizing, funding or carrying out an action within a National Park or National Wildlife Refuge that is likely to jeopardize the continued existence of the gray wolf. Formal section 7 consultation is required if a Federal action within these areas "may affect" the gray wolf.

Additional management flexibility is provided for managing wolves existing outside of the National Park or National Wildlife Refuge System (e.g., Forest Service lands). Wolves designated as nonessential experimental in these areas are treated as proposed rather than listed. Two provisions of section 7 apply to Federal actions outside National Parks or National Wildlife Refuges: (1) section 7 (a)(1), which states all Federal agencies shall utilize their authorities to carry out programs for the conservation of listed species; and, (2) section 7 (a)(4), which requires Federal agencies to confer with the Service on actions that are likely to jeopardize the continued existence of the species.

Wolves are dependant on movements of big game populations and may occur in large ungulate migration, wintering, or parturition areas. During project activities wolves may change their use of the project areas based upon changes to big game population numbers and changes in movement of herds. Project planning should consider impacts to big game populations, including wintering grounds and migration corridors.

Grizzly bear: The grizzly bear has a wide range of habitat tolerance. Contiguous, relatively undisturbed mountainous habitat having a high level of topographic and vegetative diversity characterizes most areas where the species remains. Habitat loss and direct and indirect human-

caused mortality is related to the decline in numbers. We strongly encourage the enforcement of food storage and garbage disposal stipulations. In addition, contractor should be aware of, and provide to their employees and subcontractors, information on the protected status of the grizzly bear and on appropriate personal safety measures and behavior in grizzly bear habitat. Project activities may occur during the denning season (November to March) to avoid disturbance to grizzly bears. We recommend that your actions comply with the Interagency Grizzly Bear Guidelines (1986) and the Final Conservation Strategy for the Grizzly Bear in the Yellowstone Ecosystem (2003).

Migratory Birds

Please recognize that consultation on listed species may not remove your obligation to protect the many species of migratory birds, including eagles and other raptors protected under the MBTA and the BGEPA. The MBTA, enacted in 1918, prohibits the taking of any migratory birds, their parts, nests, or eggs except as permitted by regulations and does not require intent to be proven. Section 703 of the MBTA states, "Unless and except as permitted by regulations ... it shall be unlawful at any time, by any means or in any manner, to ... take, capture, kill, attempt to take, capture, or kill, or possess ... any migratory bird, any part, nest, or eggs of any such bird..." The BGEPA, prohibits knowingly taking, or taking with wanton disregard for the consequences of an activity, any bald or golden eagles or their body parts, nests, or eggs, which includes collection, molestation, disturbance, or killing.

Work that could lead to the take of a migratory bird including an eagle, their young, eggs, or nests (for example, if you are going to erect new well sites, roads, or power lines in the vicinity of a nest), should be coordinated with our office before any actions are taken. Removal or destruction of such nests, or causing abandonment of a nest could constitute violation of one or both of the above statutes. Removal of any active migratory bird nest or nest tree is prohibited. For golden eagles, inactive nest permits are limited to activities involving resource extraction or human health and safety. Mitigation, as determined by the local U.S. Fish and Wildlife Service field office, may be required for loss of these nests. No permits will be issued for an active nest of any migratory bird species, unless removal of an active nest is necessary for reasons of human health and safety. Therefore, if nesting migratory birds are present on, or near the project area, timing is a significant consideration and needs to be addressed in project planning.

If nest manipulation is proposed for this project, the project proponent should contact the Service's Migratory Bird Office in Denver at 303-236-8171 to see if a permit can be issued for this project. No nest manipulation is allowed without a permit. If a permit cannot be issued, the project may need to be modified to ensure take of a migratory bird or eagle, their young, eggs or nest will not occur.

We appreciate your efforts to ensure the conservation of federally listed species and migratory birds in Wyoming. If you have further questions regarding our comments or your responsibilities, please contact Pat Deibert at the letterhead address or phone (307)772-2374, extension 26.

Sincerely,

Brian T. Kelly
Field Supervisor
Wyoming Field Office

cc: WGFD, Non-Game Coordinator, Lander, WY (B. Oakleaf)
WGFD, Statewide Habitat Protection Coordinator, Cheyenne, WY (V. Stelter)

References

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WYOMING GAME AND FISH DEPARTMENT

5400 Bishop Blvd. Cheyenne, WY 82006
Phone: (307) 777-4600 Fax: (307) 777-4610
Web site: http://gf.state.wy.us

June 9, 2006

WER 9826
Wyoming Department of Transportation
Hoback Junction
Environmental Impact Statement

Jeff Weinstein, Environmental Coordinator
Wyoming Department of Transportation
5300 Bishop Blvd.
Cheyenne, WY. 82009-3340

Dear Mr. Weinstein:

Thank you for providing us with this opportunity to comment on the current initiatives associated with the Hoback Junction EIS process. The following comments pertain to the wildlife and fisheries issues that we believe should be analyzed in detail prior to the development and publication of the Draft Environmental Impact Statement (DEIS). Several of these issues were discussed at the June 29, 2005 and May 11, 2006 Hoback Junction Interdisciplinary Team Meetings in Jackson. We identified additional concerns regarding the impacts road construction could have on wildlife and fish populations in our letters dated October 26, 2000; November 22, 2002; and April 3, 2006.

We believe the following issues are vital to the fish and wildlife populations, and should be addressed into the development of the DEIS:

A. GENERAL WILDLIFE AND FISHERIES MANAGEMENT ISSUES

1. Use of timing restrictions associated with construction activities to ensure that crucial habitats for fish, sensitive species, Threatened and Endangered species, and big game are not adversely impacted.
2. Construction of bicycle and pedestrian paths along the highway and not in or immediately adjacent to the riparian areas of the Snake and Hoback Rivers, or in crucial wildlife habitats.
3. Providing public access to the Hoback and Snake Rivers without impacting crucial and important habitats.
4. Mitigation of crucial and important fish and wildlife habitats, including wetlands impacts, in conjunction with our Jackson Regional Office personnel.
5. Control of runoff from road construction and road surfaces during and after construction to prevent debris and/or construction material from entering the Hoback and Snake Rivers.

B. FISHERIES MANAGEMENT ISSUES

1. Maintenance of free and unrestricted fish passage and movement in the Snake and Hoback Rivers and their tributaries, including throughout construction.
2. Protection of fish spawning and rearing habitat for juvenile fish and amphibians.
3. Maintenance of river channel sinuosity to ensure that river velocities do not increase and lead to increased sediment mobilization upstream and aggraded conditions downstream.
4. Prevention or minimization of river and stream channel alterations that will have detrimental impacts on fish movement and migration.

C. BIG GAME AND NONGAME MANAGEMENT ISSUES

1. Protection of bald eagle foraging habitat along the Hoback and Snake Rivers.
2. Protection and maintenance of bald eagle and raptor nest sites, and crucial trumpeter swan habitat.
3. Planning vehicle pullouts and recreational areas to avoid bald eagle high use areas.
4. Construction of right-of-way fencing that will minimize vehicle-wildlife collisions.
5. Construction of underpasses beneath roadway and/or bridges to promote wildlife movement to seasonal and daily habitats.
6. Adherence to existing Forest Service seasonal range closures on crucial big game habitats (winter ranges and parturition areas).
5. Surveys for amphibians prior to construction at all wetlands adjacent to the highway corridor that will be affected by road expansion.
7. Burying of power lines to minimize bird-power line collisions.

The reconstruction of the highway from South Park to Hoback Junction will occur within close proximity to at least two eagle nests, the Hoback Junction nest and the Porcupine/Ross Butte nest. Stipulations for construction near eagle nests should be consistent with what was required for the Snake River highway construction work. Please use our specific comments from that project.

Extensive work involved with the proposed alternatives to either reroute the Hoback River or build two new bridges could affect both short and long-term foraging habitat and nest success of the Hoback Bald Eagle territory, depending upon the location and length of construction activity and its effect on local fish populations. River otter and other fish eating birds would also be affected by declines in fish populations.

For the Hoback River, the tow berm alternative will have significant impacts on the river's geomorphology. The channel realignment will reduce the sinuosity of the river and result in increased velocities through the impact area that will mobilize sediment upstream and aggrade downstream. Some actions have the potential to mitigate these impacts, however, channel complexity and riparian habitat would not return to their present state.

Stabilizing the land slide will also result in the loss of the island that has formed in the river channel, which increases channel complexity, provides habitat for juvenile fish and amphibians, and is a source of woody debris and other inputs which are scarce in the lower reaches of the river. Telemetry data has shown that cutthroat trout regularly move between the Hoback and Snake rivers, and bluehead suckers are known to occur near the area of impact. Bluehead suckers are designated as an NSS1 species by our Department, meaning they their populations are greatly restricted or declining, or are experiencing significant loss of habitat, and extirpation appears possible. Alterations of the river channel could impact movements between these systems, particularly for younger age classes of fish.

The two-bridge alternative will have fewer impacts on geomorphology, however, pillars placed in the river channel and along the bank could further constrain flow and result in losses of riparian vegetation. This alternative could also provide access to the south side of the river and provide recreational opportunities along a portion of the river that is currently inaccessible to anglers.

The Snake River alternatives will have few long-term impacts to fisheries above and beyond the no action alternative. Obviously, fish passage will have to be maintained between the river and the tributaries, particularly Horse Creek, Game Creek, and Flat Creek. Any work in and along the tributaries should take place after July 1 of each year to avoid interfering with spawning migrations. Also, angler access to the Snake River via the informal access roads between Hoback Junction and Horse Creek should be maintained or improved. Though these access points are near active eagle nests along the river, seasonal closures should help alleviate any concerns.

We appreciate the extra opportunities to work with you on this complex project. Please do not hesitate to communicate with our field personnel as the project continues.

Sincerely,

BILL WICHERS
DEPUTY DIRECTOR

BW:VS

THE STATE OF WYOMING

Dave Freudenthal, *Governor*

Sleeter C. Dover, Esq., *Director*

Department of Transportation

5300 BISHOP BOULEVARD CHEYENNE, WYOMING 82009-3340

February 25, 2004

FILE COPY

Mr. Fred Auck, Chairman
Shoshone-Bannock Tribal Council
P.O. Box 306
Fort Hall, ID 83203

Dear Mr. Auck::

As you may be aware, the Wyoming Department of Transportation is proposing continued reconstruction of US 89 and US 191/189 in the vicinity of Hoback Junction, Teton County. WYDOT is in the process of preparing the draft environmental impact statement for this project, and I am seeking the input of the Shoshone-Bannock Tribe regarding concerns or issues related to cultural resources.

This project is in the early planning stages, and we are still developing specific design alternatives for the proposed construction. I've enclosed a general map showing project limits, along with project photos. For the leg of the project which extends down the Snake River from Hoback Junction, it will be necessary to replace the present bridge over the Snake River, due to problems with a massive landslide on the west side of the river. The new bridge will be either immediately adjacent to or on the same alignment as the existing bridge and will likely be three lanes wide. The roadway will transition to the two-lane highway going down the Canyon. For the leg going east up the Hoback River, the roadway is endangered by a major landslide about one-half mile upstream from the junction. A channel change of the river may be necessary to prevent the river from further-destabilizing the slide. The roadway will be three lanes wide at Hoback Junction; this will transition to a two-lane highway with wider shoulders upstream from the junction. For the leg going north towards Jackson, three alternatives are being considered. These include a five lane section (two travel lanes each direction with a center turning lane), a four-lane divided section, or a three lane section (two travel lanes each direction with a center turning lane). Regardless of which alternative is chosen, it is anticipated that construction along this section will be limited to the existing right-of-way.

A class III cultural resource inventory of a corridor 600 ft wide was completed in 2002 (report and maps attached). This survey identified three historic sites (the Hoback Junction Resort, a scatter of farm implements, and the present bridge over the Snake River). None of these are recommended as eligible to the National Register of Historic Places. Only two prehistoric sites were also discovered (48TE1572 and 48TE1573) within the area of potential effects. These were

both evidenced by a surface scatter of artifacts and firecracked rock, with some potential for buried cultural remains. The survey did not locate any stone circles, cairns, rock alignments, rock art, or burials.

Test excavation at 48TE1572 and 48TE1473 was completed in 2002 and 2003, Briefly, 48TE1572 was found to be a surface scatter of a few obsidian flakes, an unidentified projectile point tip, a few firecracked rocks, one bison bone, and a few pieces of unidentifiable animal bone. There was no evidence of any well-preserved features or buried cultural deposits, and the soils on the site have been heavily churned and disturbed by rodents. This will site will recommended as ineligible to the National Register of Historic Places. Specific physical impacts are unknown at this time.

48TE1573, the Game Creek site, was found to contain stratified deposits dating from around 9000 years ago to as recent as 500 years ago. This site contains projectile points and other tools, flaking debris, fire hearths, and butchered bison and other large animal bone in what appears to be a series of small camps or activity areas along Game Creek and Flat Creek. Obsidian is the main raw material for stone tools. No evidence of human remains has been found. The site is clearly eligible to the National Register of Historic Places. Well preserved areas of the site occur on both sides of the present highway and within the existing right-of-way. Regardless of which alternative for highway construction is chosen, there will be some impacts to the Game Creek site, and we are proposing additional excavation and recovery of scientific data prior to construction. The testing report and data recovery proposal is still in preparation, and I will forward copies of that report as soon as it is finalized. I have included site maps, photographs, and other preliminary information for your review.

WYDOT welcomes the input of the Shoshone-Bannock Tribe concerning cultural resources, data recovery at the Game Creek site, areas of traditional spiritual and religious significance which may occur near the project area, and other issues which may be of concern. If you wish, WYDOT will also arrange for a field inspection of the project area with designated tribal representatives. I have sent the same information package to the Eastern Shoshone Tribe at Fort Washakie and will be in touch with Mr. Haman Wise regarding this project. I look forward to hearing from you. If you have any questions or need any further information, please do not hesitate to contact me at 307-777-4740.

Sincerely,

Julie

Julie Francis, Ph.D.
Archaeologist,
Environmental Services

cc. Marion Barber, FHWA
Jamie Schoen, USFS
Jeff Weinstein, WYDOT

THE STATE OF WYOMING

Dave Freudenthal, *Governor*

Sleeter C. Dover, Esq., *Director*

Department of Transportation

5300 BISHOP BOULEVARD CHEYENNE, WYOMING 82009-3340

February 25, 2004

Mr. Vernon Hill, Chairman
Eastern Shoshone Business Council
P.O. Box 538
Fort Washakie, WY 82514

Dear Mr. Hill:

As you may be aware, the Wyoming Department of Transportation is proposing continued reconstruction of US 89 and US 191/189 in the vicinity of Hoback Junction, Teton County. WYDOT is in the process of preparing the draft environmental impact statement for this project, and I am seeking the input of the Eastern Shoshone Tribe regarding concerns or issues related to cultural resources.

This project is in the early planning stages, and we are still developing specific design alternatives for the proposed construction. I've enclosed a general map showing project limits, along with project photos. For the leg of the project which extends down the Snake River from Hoback Junction, it will be necessary to replace the present bridge over the Snake River, due to problems with a massive landslide on the west side of the river. The new bridge will be either immediately adjacent to or on the same alignment as the existing bridge and will likely be three lanes wide. The roadway will transition to the two-lane highway going down the Canyon. For the leg going east up the Hoback River, the roadway is endangered by a major landslide about one-half mile upstream from the junction. A channel change of the river may be necessary to prevent the river from further-destabilizing the slide. The roadway will be three lanes wide at Hoback Junction; this will transition to a two-lane highway with wider shoulders upstream from the junction. For the leg going north towards Jackson, three alternatives are being considered. These include a five lane section (two travel lanes each direction with a center turning lane), a four-lane divided section, or a three lane section (two travel lanes each direction with a center turning lane). Regardless of which alternative is chosen, it is anticipated that construction along this section will be limited to the existing right-of-way.

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WYDOT welcomes the input of the Eastern Shoshone Tribe concerning cultural resources, data recovery at the Game Creek site, areas of traditional spiritual and religious significance which may occur near the project area, and other issues which may be of concern to the Tribe. If you wish, WYDOT will also arrange for a field inspection of the project area with designated tribal representatives. I have sent the same information package to Mr. Haman Wise and to the Shoshone-Bannock tribe at Fort Hall, Idaho and will be in touch with Mr. Wise regarding this project. I look forward to hearing from you. If you have any questions or need any further information, please do not hesitate to contact me at 307-777-4740.

Sincerely,

Julie

Julie Francis, Ph.D.
Archaeologist,
Environmental Services

cc. Haman Wise
Marion Barber, FHWA
Jamie Schoen, USFS
Jeff Weinstein, WYDOT

THE STATE OF WYOMING

Jim Geringer, *Governor*
Sleeter C. Dover, Esq., *Director*

Department of Transportation

5300 BISHOP BOULEVARD CHEYENNE, WYOMING 82009-3340

July 5, 2002

Ms. Judy Wolf
State Historic Preservation Office
Barrett Building
2301 Central Avenue
Cheyenne, WY 82002

NHS-010-4(6)(65)(66)/
NHS-013-3(5)
Hoback Junction projects
Teton County

Dear Judy:

Enclosed for your review is the archaeological report for the above-named project. WYDOT is in the process of evaluating alternatives for reconstruction of U.S. 89 and 191 in the vicinity of Hoback Junction. In addition, the present bridge over the Snake River will be replaced.

The class III inventory covered a 600 ft wide corridor along the present highway. Two prehistoric sites were discovered. 48TE1572 and 48TE1573 are recommended as unevaluated pending test excavation. This work will be undertaken later this field season. 48TE1571 is the Hoback Junction resort, recommended as ineligible to the NRHP. 48TE1574 is an historic farm implement scatter recommended as ineligible to the NRHP. 48TE1034 is the existing bridge over the Snake River. It has been determined ineligible to the NRHP.

As presently planned, proposed construction will have no effect on 48TE1034, 48TE1571 and 48TE574. Test excavation will be needed to determine eligible and effects to 48TE1572 and 48TE1573. The report of test excavation will be submitted for your comment after that work is completed. If you need any additional information, please do not hesitate to contact me.

Wyoming State Historic Preservation Office
Concur: Claudia Nichols
SHPO Review No. 20020662
Date: 8/5/02

Sincerely,

Julie

Julie Francis, Ph.D.
Archaeologist,
Environmental Services

cc. Jamie Schoen, USFS
Marion Barber, FHWA

Teton County Planning Department

William E. Collins, AICP, Planning Director

October 29, 2001

Dear Mr. Chase,

I am responding to your request for information concerning the protection of farmlands in Teton County, Wyoming. The Teton County Land Development Regulations, which contain all our zoning regulations on private lands, does not contain any provision that designates specific locations within the county as being of "local importance," for crop production or grazing. Consequently, there are no zones or areas that are restricted from development specifically to protect agricultural operations.

There does exist a land development regulation, Division 3400 Agricultural Resources Preservation that has a somewhat different purpose than to restrict development from agricultural areas. The provision applies to the Rural zoning district in the County. I have included the provision in a separate attachment.

Other than grazing and alfalfa and hay production, Teton County produces few other agricultural crops. The area along Highway 26/ 89 near Hoback Junction has no special farmland protection regulations that prevent development from encroaching on lands that are used agriculturally.

I hope this information meets your needs.

Sincerely,

Curt Moore
Staff Planner

DIVISION 3400. AGRICULTURAL RESOURCES PRESERVATION

SECTION 3410. FINDINGS AND PURPOSE

I. Findings. **Ranching and farming are agricultural uses that formed the original basis for the communities in Teton County. A large part of the private lands in Teton County are still used**

in agriculture. Agriculture is crucial to the wildlife and scenic qualities, and western atmosphere of Teton County, and therefore to the tourist-based economy. Every major wildlife species in Teton County is dependent on habitat provided by ranch lands. Any view of a major scenic vista in Teton County from highways or roads, encompasses an agricultural scene in the foreground. Maintaining agricultural lands is the most efficient and inexpensive method to preserve open space which is crucial to the wildlife and scenic resources. The ranchers will keep their land undeveloped and unpopulated, control trespassing and poaching, maintain waterways and water rights, and manage vegetation, all without any expense to the public. In all areas of the County, the agricultural industry is threatened with extinction by residential and second home development due to the current basis of Teton County's economy--tourism. Ironically, the attraction for visitors in Teton County is the scenic and wildlife benefits of open space created by agricultural operations; the very operations that are threatened by increasing tourism and development. The County must protect agriculture in order to preserve the very foundation of the communities in Teton County as well as their precious wildlife and scenic resources.

II. Purpose. **The purpose of this Division is to protect and maintain the existing and potential agricultural lands in Jackson Hole for the purpose of perpetuating agriculture in Jackson Hole and preserving agricultural open space which is crucial to the wildlife, scenic and community values of Jackson Hole. This is particularly done through the mechanisms in these Land Development Regulations that have been adopted for the purpose of promoting agricultural preservation.**

SECTION 3420. SUMMARY OF MECHANISMS TO PROMOTE AGRICULTURAL PRESERVATION

III. Agricultural assessment. **By Wyoming Statute, agricultural uses in Teton County do not pay property taxes on the market value of land upon which they are located. If they did, agriculture in Teton County would have disappeared long ago. Agricultural assessments are a conscious decision in order to retain agriculture for as long as possible.**

IV. Rural District open space. **Developments in the Rural District are required to provide either fifty (50) percent or seventy (70) percent open space. If the property proposed for development has an existing agricultural operation, or a land owner wishes to establish an agricultural operation, on the portion of the property proposed as open space, agriculture is an accepted, and encouraged, use of the required open space. It is an objective of these Land Development Regulations that developments in the Rural District preserve as much open space as practical. The open space should be configured to maximize continued or future agricultural use.**

V. Rural District density. **Developments in the Rural District are kept at a low density for mainly two reasons. One is that residential development and agriculture are generally incompatible. New neighbors harass a rancher's livestock or leave a gate open and the rancher's livestock sometimes graze on a neighbor's yard or are otherwise considered a nuisance. The more the permitted form of development can either prevent or mitigate such conflicts, the more likely it is that agricultural operations can continue. Developments in the Rural District shall be compatible with agricultural operations. The County will minimize the conflicts between agricultural operations and neighboring developments by (among other things): (1) encouraging protection of contiguous open space; (2) encouraging the protection of large blocks of open space; and (3) development of an aggressive program to educate Teton County residents about ranching operations and ways to minimize potential conflicts.**

VI. Rural District permitted land uses. **Certain uses generally compatible with agricultural uses have been permitted in the Rural District in order to provide opportunities for agricultural families to diversify their income base, yet retain their primary way of life--agriculture. The following uses have been permitted in the Rural District, in many cases, specifically to promote agriculture.**

Working ranch subdivision
Agricultural employee housing
Mobile homes
Nurseries
Bed and breakfasts

Dude ranches
Agricultural support and service uses
Campgrounds
Outdoor recreational uses
Home businesses
Cottage industries

VII. Exemption of regulations for agricultural uses. **Agricultural uses, unlike other nonresidential uses, need no development permits to operate. Agricultural uses are also exempt from grading regulations, except on slopes in excess of thirty (30) percent.**

VIII. Stated policy to encourage agriculture. **Ranching is an important part of the local setting, and provides a critical background to tourism. Teton County shall adopt a policy on the significant public values of agriculture in Teton County and shall further foster, promote and encourage agriculture and defend and protect agricultural operations from encroaching development.**

IX. Ensure retention of grazing and access to USFS lands. **The County will work with the Forest Service to ensure retention of grazing leases and access rights for ranchers in Teton County.**

USDA

Natural
Resources
Conservation
Service

P.O. Box 1070
230 Broadway, Suite 2A
Jackson, WY 83001
733-2110

Subject: Hoback Junction Highway Improvement Project Date: September 4, 2001

To: Ian Chase
Carter Burgess
216 16th Street Mall
Suite 1700
Denver, CO 80202

Daryle forwarded the information regarding the Hoback project to me. Ron Recknor commented on the soils in the following quote:

> " Based on my understanding of the definitions and my knowledge of the area, I would say there are no prime, unique, or farmland areas of statewide importance in the project area. There may be local importance solely because of the land shortage in the area."

Sincerely,

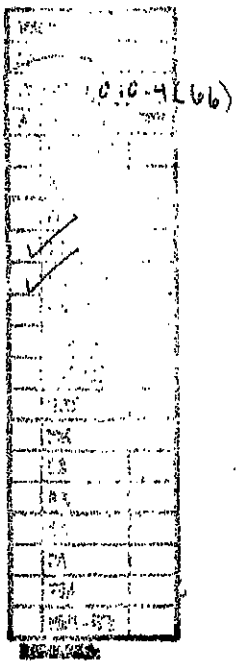
Jenny Castagno

Jenny Castagno
District Conservationist, Jackson Field Office

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
215 NORTH 17TH STREET
OMAHA, NEBRASKA 68102-4978

REPLY TO
ATTENTION OF

November 22, 2000



Wyoming Regulatory Office
2232 Dell Range Blvd., Suite 210
Cheyenne, Wyoming 82009

Mr. Lee D. Potter, P.E.
Federal Highway Administration
Wyoming Division
1916 Evans Avenue
Cheyenne, Wyoming 82001-3716

Dear Mr. Potter:

This is in reference to your November 20, 2000 correspondence requesting the Corps of Engineers, Omaha District, Wyoming Regulatory Office become a cooperating agency relative to the Environmental Impact Statement (EIS) being prepared for the improvement of US Highway 191/26/89/189, located south of Jackson and near Hoback Junction, Wyoming.

The Corps of Engineers regulates the discharge of dredged and fill material into waters of the United States (including wetlands) as authorized primarily by section 404 of the Clean Water Act (33 U.S.C. 1344). As previously noted in correspondence dated September 11, 2000, the project will involve regulated activities in waters of the U.S. and authorization is required in accordance with the referenced statute. Because we have jurisdiction by law, we agree to participate as a cooperating agency for the preparation of the EIS in accordance with 40 CFR Part 1501.6 of the Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act. We are interested in ensuring the document meets our information needs to comply with the requirements of our regulatory program.

It is noted that although our primary responsibility is associated with aquatic resources, our regulations require we assess impacts to factors relative to the public interest including, but not limited to, fish and wildlife, historic, scenic, and recreational values, property ownership, floodplain management, water supply and conservation, mineral needs, navigation, economics, and mitigation as well as others.

If you have any questions regarding this matter, please contact Chandler Peter at (307) 772-2300. Be sure to reference file number **200040230.**

Sincerely,

Matthew A. Bilodeau
Program Manager
Wyoming Regulatory Office

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
999 18TH STREET - SUITE 300
DENVER, CO 80202-2466
http://www.epa.gov/region08

Ref: 8EPR-EP

Lee D. Potter, P.E.
Pavement/Structures Engineer
Federal Highway Administration
Wyoming Division
1916 Evans Avenue
Cheyenne, WY 82001

Re: Hoback Junction EIS

Dear Mr. Potter:

Thank you for your invitation to be a "cooperating agency" on the US Highways 191/26/89/189 south of Jackson, WY (Hoback Junction) EIS. Unfortunately, EPA does not have the resources to be a cooperating agency on this EIS. We must therefore decline your invitation.

On a limited basis, we would like to work with you and the Wyoming Department of Transportation as issues arise during the EIS process. In particular we would like to be involved when additional information becomes available on potential wetlands and riparian impacts.

Resources limitations, especially travel money, will constrain EPA's participation in the EIS process. Is there funding available under Section 1309 of TEA-21 (NEPA streamlining) to defray some of EPA's costs for early involvement in the NEPA process?

EPA's staff contact for this project is Dana Allen at (303) 312-6870

Sincerely,

Cynthia Cody
Chief, NEPA Unit
Office of Ecosystems Protection
and Remediation

cc: Timothy L. Stark, WDOT

United States Department of Agriculture | Forest Service | Bridger – Teton National Forest | 340 North Cache P.O. Box 1888 Jackson, WY 8300

File Code: 7700
Date: December 4, 2000

Mr. Lee Potter, Pavement Structures Engineer
Wyoming Division Federal Highway Administration
1916 Evans Avenue
Cheyenne, WY 82001-3716

Dear Lee:

Thank you for your letter of November 20, 2000 on the progress of the Hoback Junction Environmental Impact Statement (EIS) for reconstruction of US Highways 26/89/189/191. The U.S. Forest Service will participate as a cooperating agency during the EIS process. I therefore appoint Steve Haydon to serve as a member of the project Interdisciplinary Team.

There is a great difference between this project and other existing projects on National Forest System lands of the Bridger – Teton National Forest. Very little Forest land will actually be utilized for this project. However, we do have significant environmental concern for the adjacent lands, especially water quality, wildlife, forest access, noxious weeds, and safety issues.

Contact Steve at this address or by phone (307-739-5535) when the first meeting is scheduled for the project. Steve will work with the Forest staff prior to the meeting and will work to meet our requirements as a cooperating agency for this project.

Kniffy Hamilton

CAROLE 'KNIFFY' HAMILTON
Forest Supervisor

cc: Steve Haydon
Bob Harmon, RO

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
4000 Airport Parkway
Cheyenne, Wyoming 82001

RECEIVED
AUG - 2 2001
WYOMING DIVISION

SUBJECT #		
LIBRARY #		
PROJECT #	Q10 - 4	G3
A	WY DIV	INFO
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✓	PAS/R	
	ENV/CON	
	SAF/TR	
	TECH/TS	
	RET	
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	AA	
	EA	
	PA	
	BSA	
	REAC-WY	
REMARKS:		

ES-61411
TAR/W.17/WY4229(HobackHy.ltr)

July 25, 2001

Lee D. Potter, P.E., Pavement/Structures Engineer
Federal Highway Administration - Wyoming Division
1916 Evans Avenue
Cheyenne, Wyoming 82001

Dear Mr. Potter:

Thank you for your letter of November 20, 2000 requesting the U.S. Fish and Wildlife Service (Service) to become a cooperating agency in the development of the Hoback Junction Environmental Impact Statement.

We would be happy to participate as a cooperating agency by providing technical assistance on fish and wildlife related matters. The Service will do its best to meet the expectations outlined in your letter, given staff, workload, and travel limitations. However, we will not be able to write portions of the document as we will be consulting on the proposed project and we will not be able to "adopt" the final document.

We appreciate your efforts to ensure the conservation of endangered, threatened, and candidate species and migratory birds. If you have further questions on this subject, please contact Terry A. Root of my staff at the letterhead address or phone (307) 578-5932.

Sincerely,

Michael M. Long
Field Supervisor
Wyoming Field Office

cc: Director, WGFD, Cheyenne, WY
Nongame Coordinator, WGFD, Lander, WY