

Transportation Specialist Report Whitetail Hazardous Fuels Project

**USDA-Forest Service
Ashland Ranger District
Custer National Forest**

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1.1 Transportation Resources

1.1.1 Introduction

The Transportation Resources section will discuss management direction, current conditions, and environmental consequences of the proposed alternatives on the transportation resource. The analysis area for transportation resources will be the Whitetail Hazardous Fuels Project Area and access routes to the area.

1.1.2 Management Direction

1.1.2.1 Forest Plan Management Objectives

The management direction for the transportation system is described in the Custer National Forest Land and Resource Management Plan (Forest Plan). The Forest Plan management objectives for transportation are summarized below (USDA Forest Service October 1986):

- The Forest transportation system required by this plan will be constructed and managed to minimize adverse impacts on the resources, while providing access to public lands for the public and for the management of the resources. (page 5)

1.1.2.2 Forest Plan Management Standards

The Custer National Forest Plan includes standards to be applied to the Forest. These standards are intended to supplement, not replace, the National and Regional policies, standards, and guidelines found in Forest Service Manuals and Handbooks, and in the Northern Region Guide. The following are some of the standards related to this project and the transportation systems, for a complete list please refer to the USDA Forest Service October 1986 Custer National Forest Land and Resource Management Plan:

- Roads will be located, designed and constructed to provide for safety, cost efficiency, resource needs and protection, and public access. (page 36)
- Design criteria will be as shown in Forest Service manuals and handbooks, and will meet Forest Service specifications for Forest development roads. Road standards will be no higher than that necessary for safety and the proposed use. (page 36)
- Erosion control measures for all roads will be part of the design package. These measures will address specific items and how they will be treated. (page 36)
- Any road planned for closure at the end of an activity shall have rehabilitation needs identified prior to its construction. (page 36)
- Road management programs will include maintenance, signing, and traffic control. (page 37)

1.1.2.3 Forest Plan Management Area

The Forest Plan Management Areas the project lies within are D, F, and P.

Management Standards are set forth for each management area. The following are some of the standards related to this project and the transportation systems, for a complete list please refer to the USDA Forest Service October 1986 Custer National Forest Land and Resource Management Plan:

Management Area D is 99.5% of the project area:

- Access roads needed to meet legal obligations will be provided as required, but roads will be routed to minimize loss of wildlife habitat.

- Roads will not be constructed on slopes of 40 percent or greater. Exceptions may be made for short distances, i.e. one-quarter mile or less where this will minimize the total impacts to the area.(page 56)
- Existing county and Forest Service arterial and collector roads will be maintained and reconstructed/upgraded as necessary. This may include road realignment/relocation where necessary to meet public safety requirements and/or reduce erosion problems associated with these roads.(page 56)

Management Area F is 0.1% of the project area:

- Roads will be maintained for safety, soil and water protection, and to provide for travel of passenger carrying vehicles.(page 61)
- If specific campgrounds are closed, the roads within them will also be closed.

Management Area P is 0.4% of the project area:

- Administrative sites will be maintained for a well-kept appearance and will be signed for public recognition.(page 88)

1.1.2.4 2001 Tri-State Off-Highway (OHV) Vehicle Decision

In 2001, the Forest Service issued a decision that addressed unmanaged motorized cross-country travel on all National Forest System lands in Montana, North Dakota and parts of South Dakota. The Custer National Forest implemented a forest order in response to the Tri-State OHV Decision that prohibited cross-country motorized vehicle travel except for dispersed vehicle camping within 300 feet of motorized routes.

1.1.2.5 2005 Motorized Travel Rule

In December 2005, a new travel management rule took effect for all National Forest System lands. The new rule directs National Forests to designate roads, trails, and areas suitable for motorized travel. All National Forests are expected to complete the planning and designation process by 2009. The Custer National Forest has committed to completing the Ashland District by October 2009.

All travel management decisions for this project area will be made in the Ashland District Travel Management Project. Scheduled for a decision Fall 2009.

1.1.3 Current Condition

The Whitetail Hazardous Fuels project area has 38.4 miles of roads within the project area. *Roads* are a motor vehicle route over 50 inches wide, unless identified and managed as a trail. (36 CFR part 212) With the project area of 9767 acres (15.26 sq.miles), the current road density within the project area is 2.52 miles of road per square mile. The existing transportation system was developed to meet management needs. The majority of the roads within the project area were created to provide access for manage of range allotments and vegetation management.

1.1.3.1 National Forest System and Unauthorized Roads

There are 32.5 miles of existing forest service jurisdiction *National Forest System Roads* (NFSRs) within the project area and 2.4 miles outside the project area that will be used as access for the project. A National Forest System road is a forest road other than a road which has been authorized by a legally documented right-of-way held by a state, county, or other local public road authority. (36 CFR part 212)

A *forest road* is a road wholly or partly within or adjacent to and serving the National Forest System that the Forest Service determines is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources. (36 CFR part 212)

Unauthorized roads in the project area vary from roads constructed for logging, to 2-track user created routes for range management and recreation. An *unauthorized road* is a road that is not a forest road or a temporary road and that is not included in the forest transportation atlas. There are 4.7 miles of unauthorized roads within the project area and 0.1 miles outside the project area being used for project access. 3.6 miles of these roads will be used for long-term access and management activities, while 1.1 miles are not needed for long term access and management activities.

1.1.3.2 Road Maintenance Levels

Maintenance Level 1 is assigned to intermittent service roads during the time they are closed to vehicular traffic. The closure period must exceed 1 year. Basic custodial maintenance is performed to keep damage to adjacent resource to an acceptable level and to perpetuate the road to facilitate future management activities. Emphasis is normally given to maintaining drainage facilities and runoff patterns. Planned road deterioration may occur at this level. Appropriate traffic management strategies are “prohibit” and “eliminate”. Roads receiving level 1 maintenance may be of any type, class or construction standard, and may be managed at any other maintenance level during the time they are open for traffic. However, while being maintained at level 1, they are closed to vehicular traffic, but may be open and suitable for non-motorized uses. (FSH 7709.58, Sec 12.3 – Transportation System Maintenance Handbook)

Maintenance Level 2 is assigned to roads open for use by high clearance vehicles. Passenger car traffic is not a consideration. Traffic is normally minor, usually consisting of one or a combination of administrative, permitted, dispersed recreation, or other specialized uses. Log haul may occur at this level. Appropriate traffic management strategies are either (1) discourage or prohibit passenger cars or (2) accept or discourage high clearance vehicles. (FSH 7709.58, Sec 12.3 – Transportation System Maintenance Handbook)

Maintenance Level 3 is assigned to roads open and maintained for travel by a prudent driver in a standard passenger car. User comfort and convenience are not considered priorities. Roads in this maintenance level are typically low speed, single lane with turnouts and spot surfacing. Some roads may be fully surfaced with either native or processed material. Appropriate traffic management strategies are either “encourage” or “accept.” “Discourage” or “prohibit” strategies may be employed for certain classes of vehicles or users.(FSH 7709.58, Sec 12.3 – Transportation System Maintenance Handbook)

Table 1 displays the existing road maintenance level within the project area and roads used to access the project area.

Table 1: Existing Maintenance Level

Maintenance Level	Miles Within Project Boundary	Miles Outside Project Boundary	Miles Total
Decommissioned	0.7	0.2	0.9
1 (closed)	0.0	0.0	0.0
2 (high clearance vehicle)	26.9	0.3	27.2
3 (passenger car)	4.9	1.9	6.8
Unauthorized	4.7	0.1	4.8
County	1.2	11.6	12.8
Total	38.4	14.1	52.5

1.1.3.3 Trails

Currently there are no trails located within the project area.

1.1.3.4 Travel Management

The current travel management in the project area is “open to travel unless posted as closed”. Unless a travel route is specifically designated as closed, it is open to travel by motorized vehicle. In addition, 2001 Tri-State Off-Highway Vehicle (OHV) Decision (*Off-Highway Vehicle (OHV) Environmental Impact Statement and Proposed Plan Amendment for Montana, North Dakota, and Portions of South Dakota*) allow use of the unauthorized roads until a site specific analysis has been completed.

All travel management decisions for this project area will be made in the Ashland District Travel Management Project following the 2005 Motorized Travel Rule guidelines. Scheduled for a decision Fall 2009.

1.1.3.5 Transportation System Access

The existing system roads do not provide suitable access to all areas for management needs. In the past, temporary or unauthorized roads provided access to many areas. There is re-occurring need for some of these unauthorized roads, especially for timber harvest and fuels management. Review of the transportation systems for the project area indicates approximately 3.7 miles of unauthorized roads would provide long-term access. The Transportation System map displays the desired transportation system for the project area.

Road 47696A was decommissioned; however, it has been identified to be added back to the forest road system to address long-term access.

Roads 41339A, 44235, 44237A, 44271B, 44273, 47699, 4777B2 have been identified to be added to the forest road system to address long-term access.

Roads 41338A, 41338B, 41338C, 44272A, 4777B1a are routes that have no identified long-term access need. These roads are of little or no value for transportation because there is another road in the vicinity that provides access, or they are roads that were constructed for a one-time need. The location of some unauthorized roads in close proximity to draws, or traversing steep grades makes them undesirable.

1.1.4 Proposed Action

1.1.4.1 Road Construction, Reconstruction, Reconditioning, Maintenance and Obliteration

Roads 47696A, 4133, 4427, 4466, 4777, 4777B, 44237, 44271, 44272, 4512, 4777B1, 41338, 41339, 4422, 4427, 4769, 47696, 41338A, 41339A, 44237A, 44273, 47699, 4777B2, 4423 are within or adjacent to commercial treatment areas and will be used for access during treatment activities. Timber resource has also identified the need for construction of 7.9 miles of temporary road.

Construction, Reconstruction, and Reconditioning activities will focus on ensuring Best Management Practices (BMP's) are being met. Planned road construction, reconditioning and reconstruction will improve the existing roads to the standard necessary for the anticipated use.

Road 47696A (previously decommissioned) will be constructed for 0.9 miles to ensure BMP and safety compliance for commercial haul activities. Work will include brushing, blading and shaping the road, construction of rolling dips and sign installation. It is estimated at \$4,500 per mile for this type of construction. Construction of 0.9 miles has a total cost of \$4,050.

The proposed action will reconstruct 11.32 miles of existing NFSR 41338, 41339, 4422, 44237, 4427, 4469, 44696, and 4512. Reconstruction would consist of small realignments, brushing, shaping, blading, ditch cleaning, culvert cleaning and repair, armored drainage crossing construction, spot

surfacing, cattleguard/fence repair/replacement and sign repair/replacement. It is estimated at \$20,000¹ per mile for this type of reconstruction for a total cost of \$226,400.

Roads portion of 44271, 44272, portion of 4777B1, portion of 41338A, 41339A, 44237A, 44273, 47699, 4777B2 will be reconditioned to ensure BMP and safety compliance for commercial haul activities. Work will include brushing, blading and shaping the road, construction of rolling dips and sign installation. It is estimated at \$4,500 per mile for this type of reconditioning. Reconditioning of 4.74 miles has a total cost of \$21,330.

Routes 44272A, 4777B1a, 41338B, 41338C, and a portion of 41338A will be not be used for commercial activity and no long term use has been identified. These roads will be obliterated using appropriate funding. Obliteration will be done by scarifying in a random pattern (not just parallel to the roadbed), restoring to contour if a cut-slope exists and scattering of debris (where available) to a minimum distance of 100 feet or to a length the road can not be seen from the open system road. Water bars will be constructed to ensure proper drainage. Seeding will be done with native seed mix. It is estimated at \$7,500 per mile for this type of obliteration. Obliteration of 1.07 miles has a total cost of \$8,025.

Roads 4027, 40271, 41337, 44235, 44237, 44271A, 44271B, 47692, 47692A, and portions of 4777B1, 4777B2, 41338, 41339, 4769, 44271 are not being used for commercial activities. No maintenance, reconditioning or reconstruction is being proposed.

Roads 4133, 4466, 4777, 4777B, and a portion of 4427 will require pre-, during, and post- haul maintenance. Road 4423 is East Fork Otter Creek Road and 12.8 miles of this road will be used for commercial activities. Maintenance will be required on this road.

Collection of surface rock replacement will be required on all system routes used for commercial activities.

Table 2. Road Construction, Reconstruction, Reconditioning, Maintenance and Obliteration

Road Activities	Proposed Action (miles)	Estimated Cost
No work	16.9	-
County Maintenance	12.8	-
Maintenance Only	4.8	- ²
Obliteration	1.1	\$8,025
Reconditioning	4.7	\$21,330
Reconstruction	11.3	\$226,400
Construction	0.9	\$4,050
Total	52.5	\$269,660

Road Maintenance Levels

1.1.4.2 Maintenance Levels

Table 3 summarizes the miles of roads resulting from the Proposed Action by maintenance level.

¹ All costs are estimated using 2007 dollars.

² Refer to Timber Resource Report for estimated maintenance costs.

Table 3. Proposed Action Road Maintenance Level Summary

Maintenance Level	Miles Within Project Boundary	Miles Outside Project Boundary	Miles Total
Decommissioned	1.1	0.0	1.1
1 (closed)	3.5	0.3	3.8
2 (high clearance vehicle)	27.7	0.3	28.0
3 (passenger car)	4.9	1.9	6.8
Unauthorized	0.0	0.0	0.0
County	1.2	11.6	12.8
Total	38.4	14.1	52.5

1.1.4.3 Heritage

Heritage has inventoried a 150' wide corridor along the roads. Sites have been identified. Please refer to the Heritage resource report.

1.1.4.4 Road Management Objectives

A summary of the roads proposed to be used in the project area can be found in Appendix A.

1.1.4.5 Transportation System Access

The transportation system in the Proposed Action would provide a system of roads that provides long-term access for vegetation treatment and other forest management activities.

1.1.5 References

USDA Forest Service. 1986. Custer National Forest Land and Resource Management Plan (Forest Plan). Billings, MT: USDA Forest Service, Custer National Forest.

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Appendix A

Road Summary