

## Chapter 2. Alternatives, Including the Proposed Action

### Introduction

This chapter describes the alternatives considered for the Forest Travel Management Plan. The maps for each alternative considered are included in Appendix I, the map packet. This chapter also presents the alternatives in comparative form, defines the differences between each alternative, and provides a clear basis for choice among options by the decisionmaker and the public. Some of the information used to compare the alternatives is based on the design of the alternative and some of the information is based upon the expected environmental, social, and economic effects that could be expected from implementing each alternative. These effects are discussed in detail in Chapter 3 of this document.

### Alternative Development

To support alternative development, information provided by the public and Forest personnel was used to develop a comprehensive inventory map of roads, trails, and areas across the Forest. Public comments on the proposed action, public preferences concerning travel management expressed at meetings, and the knowledge of agency personnel were used to develop the alternative themes. The topics considered in developing the alternative themes include:

- Motorized cross-country use in the form of big game retrieval and dispersed camping
- Looped OHV trail opportunities
- Access points (trailheads)
- Noise
- Conflicts with other uses of the National Forest including nonmotorized recreation
- Effects on cultural resources
- Effects on natural resources including plants, wildlife and watersheds
- Spread of noxious weeds
- Education and law enforcement
- Economic feasibility
- Administrative access

After the alternative themes were established, the alternatives were developed by examining each road, trail (whether system or non-system), and area. The ID team and District staff used site-specific comments and knowledge of specific site conditions to develop a strategy for the management of roads, trails, and areas based on the alternative theme. Alternatives were then checked for consistency with the Forest Plan.

### *Relationship of Alternatives to Forest Plan Direction*

The Forest Plan defines a set of goals, objectives, standards, and guidelines that provide direction for managing the Forest and its resources. The law requires that individual project decisions be consistent with Forest Plan direction. If a project proposal is not consistent with that direction, the project may be modified to make it consistent; it may be dropped; or, the Plan may be amended to allow implementation of the project. The alternatives presented in this

document would manage motorized travel in different ways. Several changes to Forest Plan direction are proposed to update Plan direction and allow implementation of each action alternative.

**Forest goals** are broad statements that describe overall conditions managers would strive to achieve. They are not directly measurable and there are no timeframes for achieving them. Goals describe the ends to be achieved rather than the means to these ends; they serve as vision statements. **Objectives** provide means in the form of measurable steps required to accomplish goals. Objectives generally are achieved by implementing projects or activities. However, objectives are not targets, which are a measure of annual outputs dependent on budgets.

A **standard** is a course of action that must be followed, or a limit to actions that may be taken when implementing individual projects. Adherence to standards is mandatory. Consistency with the Forest Plan is defined as compliance with standards. Deviations from standards must be analyzed and documented in a Forest Plan amendment with appropriate public involvement.

A **guideline** is a preferred or advisable course of action, or a recommended limit to actions when implementing projects. Deviation from guidelines is allowed with clear and acceptable rationale.

A Forest Plan also establishes additional direction for individual **management areas**, each with a different management emphasis. **Management area direction** includes a desired condition statement and then defines which management activities may be carried out, with additional standards and guidelines as needed to manage or protect specific resources within the boundaries of those areas. Wilderness and developed recreation sites are two examples of management areas with very different management emphasis.

### Forest Plan Goals and Objectives

The Travel Management Plan would meet goals and objectives established in the Forest Plan, although the relative emphasis varies by alternative. Some of the relevant goals found in the Forest Plan include:

- (Goal 1) Protect basic soil, air, water, and cave resources.
- (Goal 2) Provide for a variety of life through management of biologically diverse ecosystems.
- (Goal 4) Provide for scenic quality, a range of recreational opportunities and protection of cultural resources in response to the needs of the Forest visitors and local communities.
- (Goal 6) Improve financial efficiency for all programs and projects.
- (Goal 7) Emphasize cooperation with individuals, organizations and other agencies while coordinating planning and project implementation.
- (Goal 8) Promote rural development opportunities.

Relevant Forest Plan standards and guidelines are cited in individual resource sections in Chapter 3, and can be reviewed in the Forest Plan.

### *Features Shared by All Alternatives*

Any selected alternative would provide for the following:

**Emergency** - Search and rescue and other emergency operations, and the use of any fire, military, or law enforcement vehicle for emergency purposes would be exempted from travel management prohibitions.

**Emergency Closure** - Emergency closure would be implemented by the responsible official as warranted to protect resources, health and safety, etc. Federal land managers are directed to ensure that the use of motorized vehicles and off-road vehicles are managed to protect the resources of those lands, to promote the safety of users, to minimize conflicts among the diverse uses of the Federal lands, and to provide for public use of routes designated as open. (Executive Order 11644, 26 CFR 212 and 43 CFR 8342.1.)

**Future Changes** - The final rule recognizes that the designations of roads, trails, and areas for motorized vehicle use are not permanent and that environmental impacts, administrative needs, changes in demand, route construction, and monitoring conducted under the final rule may lead land managers to consider revising designations. (36 CFR 212.54, 212.57.) Nothing in this plan precludes future project-specific environmental analysis from proposing construction of new system roads and trails, or annual changes to roads and trails and areas as conditions warrant.

**Administrative Access** - The Forest Service would retain administrative access authority sufficient to carry out official business including but not limited to conducting resource surveys, administering contracts and permits, suppressing wildfires or addressing other such emergencies, maintaining roads and other facilities, etc.

Access would also be allowed to contractors and permit holders operating within the terms and scope of their contract or permit, to conduct Government-related business. This specifically would include, but not be limited to commercial traffic such as timber sale purchasers, road contractors, and those holding special use and livestock grazing permits.

Reasonable administrative access would be allowed as appropriate for other local, State and Federal agencies to manage their adjacent or isolated parcels.

If a NFS road or a specially designated OHV trail is needed for timber or fuels management or fire suppression, all OHV use, both highway-legal and non-highway-legal, would be temporarily suspended or could even be permanently discontinued. Substitute routes may, or may not, be designated.

Special seasons of use and other restrictions on operations of all OHVs, both highway-legal and non-highway-legal, would not necessarily pertain to timber, fire, and fuels management activities unless they are applied in a decision to implement those projects.

Language in existing permits or contracts would not be interpreted to allow OHV use where it is otherwise prohibited. For example, a firewood permit that allows the permittee to collect firewood from areas where motorized game retrieval is prohibited would not be construed to allow motorized game retrieval under the guise of collecting firewood.

### *Description of the Alternatives*

The alternatives, including no action and proposed action, are designed to provide a range of options from which the responsible official can make an informed choice. The alternatives, which were developed by an interdisciplinary team of specialists, differ by the relative emphasis given to individual issues and public concerns. After reviewing the issues and grouping them in different combinations, several possible alternative themes emerged. Each represented a

potential travel plan that met the project objectives (purpose and need) and addressed the issues in different ways.

Alternatives considered in detail are described below in terms of their theme and the relationship to the issues. The theme focuses on a particular issue or a group of compatible issues (for example, limiting effects of motorized use to natural resources and reducing conflicts with nonmotorized users). The relationship to issues further explains how specific elements of the issues are addressed by the alternative.

### Alternatives Considered in Detail

In addition to no action and the proposed action, the Forest Service developed three other alternatives in response to issues raised by the public. These alternatives are presented after the no action and proposed action alternatives.

#### *Alternative A – No Action*

NEPA regulations at 40 CFR 1502.14 require that “agencies shall...include the alternative of no action.” This is intended to provide a baseline against which the effects of other alternatives can be measured.

Under this alternative, there would be no change from present management. Current management plans would continue to guide motorized travel in the project area. Current travel patterns, modes of use and enforcement actions would be expected to continue.

**Alternative A** would continue the current situation. Cross-country motorized use would continue on 864,000 acres in an unregulated manner. The trail system would consist of the existing 36 miles of motorized trails. User compliance and law enforcement would continue to be difficult without an approved MVUM. Resource damage and conflicts with nonmotorized recreationists would continue to take place, and motorized users would not enjoy a planned travel system designed to meet their needs.

There are presently 10,280 miles of existing routes on NFS lands, including some 4,109 miles of known unauthorized routes. There are about 820 miles of other public roads on NFS lands, which would not be affected by the decision on this project. This alternative would continue the current “passive” travel system, meaning a travel system that was not designed to accommodate recreational motorized use of various types. Continuation of use on the current system would not meet the recommendation of the NFAB Travel Subcommittee to establish an “active” motorized travel system. The sheer size of the existing system would continue to present the Forest Service with many maintenance challenges.

No motor vehicle use map would be issued, so no roads, trails, or areas would be officially designated open to wheeled-motorized-vehicle travel on lands administered by the Forest. As a result, if this alternative were selected the Forest Service would not comply with the 2005 travel rule. Future project decisions could consider designating unauthorized routes as part of the travel system; however, no unauthorized routes would be officially designated part of the Forest system by selecting this alternative.

**Vehicles** - South Dakota State law requires that motor vehicles using public roads be registered and bear a vehicle license (highway-legal). Wyoming State law allows use of both highway-legal and non-highway-legal motor vehicles on certain enrolled roads.

**Vehicle Operators** - Current State law in both South Dakota and Wyoming requires that motor vehicles on public roads be operated only by licensed drivers.

**Cross-country Use** - Some 864,000 acres of the Forest currently open to motorized cross-country use would remain open. Motorized cross-country travel presently is undertaken for a variety of purposes including retrieval of big game downed by hunters, dispersed camping, and general OHV recreational traffic.

Currently, no roads or trails are officially designated open to motorized vehicle use under the sense contemplated in the Final Travel Management Rule. Motorized use occurring on roads, trails, and in areas where such use is not specifically prohibited has generally been legal within the bounds of Federal regulation if it is not damaging natural resources. Such motorized use is also generally legal within the bounds of state law if the vehicle is highway-legal and the operator is licensed. Attempts by Forest Service law enforcement personnel to successfully prosecute citations for resource damage in courts of law are made more difficult by the need to witness the accused in the act of damaging resources. Since law enforcement officers do not witness most such instances, many cases are not prosecuted fully. If Alternative A were selected, it is expected that these enforcement difficulties would continue. It is expected that the use of unauthorized routes, and the proliferation of new unauthorized routes, would also continue. Motorized recreation opportunities under Alternative A are characterized in Table 1.

**Table 1. Indicators of motorized recreation opportunities in Alternative A (no action)**

<b>Indicators</b>	<b>Alternative A (current condition)</b>
<b>Roads</b>	
Miles of road open to all vehicles ( <i>motorized-mixed-use roads</i> )	160
Miles of road open to highway legal vehicles only ( <i>non-highway-legal vehicles prohibited</i> )	3,580
<b>Total miles of roads</b>	<b>3,740</b>
<b>Trails</b>	
Miles of trail open to all vehicles	0
Miles of trail open to vehicles 50" or less in width	36
Miles of motorcycle trail	0
Miles of special designations	0
<b>Total miles of trails</b>	<b>36</b>
<b>Total miles of proposed motorized routes</b>	<b>3,776</b>
Number of motorized-use trailheads	7
<b>Area open to Motorized Cross-country Use</b>	
Acres open to dispersed camping (motorized)	864,000
Acres open to game retrieval (motorized)	864,000
Acres open to cross-country travel (non-game retrieval)	864,000
<b>Total area open to motorized cross-country travel (acres) (Note: not additive)</b>	<b>864,000</b>

Please refer to Table 7 for parameters further describing this alternative, and to compare this alternative to others.

### **Action Alternatives – Alternatives B through E**

Alternatives B through E are referred to in this document as the action alternatives, to distinguish them from Alternative A, the no action alternative. The action alternatives include Alternative B, the modified proposed action, and Alternatives C, D and E, which were developed to address concerns expressed by the public about the proposed action.

#### *Features Common to Action Alternatives*

The following features would be incorporated in each action alternative unless stated otherwise.

**Compliance with the 2005 Travel Management Rule** - Each action alternative would designate selected roads and trails open to motorized-vehicle travel on lands administered by the Forest, and set specific seasons and types of use for designated roads, trails and areas. Coupled with publication of the Forest motor vehicle use map (see below), the Forest Service would comply with the requirements of the 2005 Travel Management Rule (36 CFR Parts 212, 251 and 261).

**Motor Vehicle Use Map** - For any action alternative selected, a motor vehicle use map would be produced depicting those routes and areas that would be open to motorized travel. The motor vehicle use map would be the primary tool used to determine compliance with and to enforce motorized travel designations. Routes not designated open on the motor vehicle use map would be legally closed to motorized travel except for administrative access. User responsibilities and law enforcement would focus on compliance with the motor vehicle use map, pursuant to regulations at 36 CFR 261, Subpart A. The Forest Service believes this would tend to improve user understanding of acceptable behavior and use of the motorized system, and to facilitate enforcement and prosecution of violations.

**Sound** - A stationary sound limit of 96 decibels (dB(A)) is proposed for OHVs including motorcycles operating on designated routes and areas administered by the Black Hills National Forest. The stationary sound test procedure provided by the Society of American Engineers (SAE J1287) would be the standard used to determine compliance with this sound limit. Enforcement would be based on measurement conducted by Forest trail rangers and law enforcement personnel, but measurement for educational purposes could also be performed by dealers, clubs, and other groups. A Forest order may be needed to implement this feature.

**New Construction Efforts Associated With Action Alternatives B, C, and D** - Alternatives B, C, and D involve designating between 181 and 460 miles of routes as trails 50 inches or less in width (year-round and seasonal), between 21 and 134 miles of motorcycle trails, and between 23 and 34 trailheads. Many of the trails proposed to be designated are roads currently closed (Maintenance Level (ML) 1), low-standard roads (ML 2), unauthorized routes that were old roads, routes that were pioneered by cross-country travel, or trails that are proposed but currently have no physical form on the ground. Construction efforts needed to provide an environmentally sustainable trail system from these beginnings would include several different tasks. These would include reconstructing some existing ML 1 roads and some old roadbeds to support and endure concentrated ATV or motorcycle traffic, constructing new engineered trails where only tracks now exist, constructing stream crossings (bridges, culverts, etc.) where needed, and constructing new trailheads. The construction methods would vary depending on the level of

effort needed, and could involve use of equipment ranging from a small trail dozer to a road grader to rework existing roadbeds or create a parking lot for a trailhead.

**Game Retrieval and Dispersed Camping in Action Alternatives B and C** - Limited motorized cross-country use would be allowed in Alternatives B and C for the purposes of retrieving legally harvested game and for dispersed camping. Motorized game retrieval and dispersed camping would be allowed where shown on the alternative maps, and as generally described in the alternative descriptions. For game retrieval, there would be no restriction on time of day. Only one vehicle would be allowed off-road to retrieve each downed animal, but more than one pass of this single vehicle would be allowed as needed. Persons retrieving a game animal would be required to use the most direct route to and from the nearest designated open route, possess a valid hunting license, and keep weapons cased during game retrieval.

For both game retrieval and dispersed camping, resource damage would not be allowed as a result of the activity (for example, cutting live vegetation or leaving wheel ruts on the ground). Crossing streams would not be allowed if water is present (except on designated routes), and crossing wetlands would not be allowed.

#### *Alternative B – Modified Proposed Action*

Alternative B represents the action proposed by the Forest Service to the public during scoping. It has been modified since that time to correct data errors, and some routes or areas have been added or deleted. However, the intent of this alternative is the same as the original proposed action on which the public was asked to comment at scoping. Alternative B incorporates, to a greater degree than any other alternative, the initial input from the National Forest Advisory Board and Travel Subcommittee, and citizen-user input received during the scoping process, public meetings and workshops. This alternative also incorporates agency knowledge of resource conditions and risks of damage to resources.

The intent of this proposal is to provide for diverse motorized recreation opportunities on an active (consciously designed) motorized travel system of designated roads and trails. The system would limit effects to natural resources, as well as conflicts with nonmotorized recreationists. This alternative would limit cross-country motorized travel to specified distances from certain roads for the sole purposes of game retrieval and dispersed camping, with certain exceptions provided by law. This would represent a major reduction from the current situation in terms of the total area on which motorized cross-country travel would be allowed, and the types of use allowed on that area. This alternative would designate almost as many miles of motorized routes near adjacent private lands as in Alternatives A, C and E.

**Alternative B** would meet most NFAB recommendations to provide an active travel system while protecting resources and reducing conflicts with other users. It would provide 2,226 miles of mixed-use roads and boost motorized trails to 663 miles, and limit cross-country motorized use to 179,000 acres for game retrieval and dispersed camping only. The MVUM would make user compliance and law enforcement easier. Resource damage and conflicts with nonmotorized recreationists would be reduced, and motorized users would find a planned travel system designed to meet their needs.

Alternative B would increase the number of miles of motorized forest trails from 36 to 663 (a 627-mile increase), and increase the miles of forest roads where motorized mixed use is allowed from 160 to 2,226 (a 2,066-mile increase; see Table 2). The number of motorized-use trailheads

would increase from 7 to 31. Motorized cross-country use for the sole purposes of game retrieval or dispersed camping would be reduced from 864,000 to 179,000 acres (a 685,000-acre decrease). Total NFS route mileage used would decrease by over 4,000 miles to 4,950 miles, and the number of motorized road and trail crossings on perennial streams would decrease by more than 1,200 to 547. Please refer to Table 7 for parameters further describing this alternative, and to compare this alternative to others.

**Table 2. Motorized recreation opportunities in Alternative B, the proposed action**

Indicators	Alt. B	Current condition
<b>Roads</b>		
Miles of road open to all vehicles ( <i>motorized-mixed-use roads</i> )	2,226	160
Miles of road open to highway legal vehicles only ( <i>non-highway-legal vehicles prohibited</i> )	1,240	3,580
<b>Total miles of roads</b>	<b>3,466</b>	<b>3,740</b>
<b>Trails</b>		
Miles of trail open to all vehicles	147	0
Miles of trail open to vehicles 50" or less in width	414	36
Miles of motorcycle trail	76	0
Miles of special designations	25	0
<b>Total miles of trails</b>	<b>663</b>	<b>36</b>
<b>Total miles of proposed motorized routes</b>	<b>4,129</b>	<b>3,776</b>
Number of motorized-use trailheads	31	7
<b>Area open to Motorized Cross-country Use</b>		
Acres open to dispersed camping (motorized)	63,500	864,000
Acres open to game retrieval (motorized)	179,000	864,000
Acres open to cross-country travel (non-game retrieval)	0	864,000
<b>Total area open to motorized cross-country travel (acres)</b> <i>(Note: not additive)</i>	<b>179,000 (limited)</b>	<b>864,000</b>

Permits would need to be secured prior to any in-water construction work on six proposed new perennial stream crossings, pursuant to Section 404 of the Clean Water Act (see Appendix B, design criteria for fisheries and hydrology). Stormwater permits under Section 402 would be required for construction exceeding one acre in size on trailheads or other facilities.

This alternative would provide for motorized mixed use (meaning use by both highway-legal and non-highway-legal motor vehicles) on a designated system of roads (primarily Level 2 with some Level 3, 4 and 5 roads). In response to recommendations from the NFAB, and scoping comments, this system would feature travel loops within concentrated motorized use areas (CMUAs), and routes connecting CMUAs.

**CMUA** (Concentrated Motorized Use Area) – a defined area featuring smaller-scale loop routes and other motorized travel opportunities.

**Vehicles** - By providing for use by both highway-legal and non-highway-legal motor vehicles, this alternative, if



selected, would pre-empt (not be in accord with) South Dakota State law in its current form, which requires that only highway-legal motor vehicles may use public roads. Wyoming State law provides for use of both highway-legal and non-highway-legal motor vehicles on certain roads officially recognized (enrolled) by the State. If this alternative were selected, the Forest Service would comply with Wyoming State law by enrolling all designated roads in the Wyoming program.

**Vehicle Operators** - It is important to understand that only users with a valid state driver's license (from any state) would be legally allowed to operate motor vehicles on the roaded portion of the motorized travel system in this alternative. Unlicensed operators could legally operate a motor vehicle only on the trail portion of the system. This would comply with current State law in both South Dakota and Wyoming. Please refer to Table 6 for more information on vehicle and operator requirements, and motorized-mixed-use opportunities available under this alternative.

**Cross-country Use**- Unrestricted motorized cross-country use would not be allowed in this alternative. Instead, limited motorized cross-country use would be allowed for retrieving harvested elk only (not deer) within 300 feet of certain designated roads; and, for dispersed camping within 100 feet of certain designated roads. Motorized cross-country travel would not be allowed for any other purpose or in any other location, with certain exceptions provided by law. Total area available to limited motorized cross-country use in this alternative would be 179,000 acres.

**A Forest Plan amendment** would be required to implement this alternative. Changes to existing Forest Plan direction would take two general forms. First, where existing objectives provide quantities for road and trail mileage and cross-country area, these would be updated to conform to the quantities provided by this alternative. Second, certain standards and guidelines would be updated to conform to the Final Rule and amended regulations, to provide that motorized vehicle use would be allowed on roads, trails, and areas only as shown on the motor vehicle use map or as contained in a Forest Travel Order. Refer to Appendix F for specific changes to existing Forest Plan direction proposed under this alternative. It is anticipated that these proposed changes would constitute a minor or nonsignificant Forest Plan amendment.

### *Alternative C*

The intent of Alternative C is to create more motorized recreation opportunities than any other alternative on an active, designed system of looped roads and trails. This alternative would provide cross-country travel opportunity on a larger area than in Alternative B for the purposes

**Alternative C** would provide the largest travel system. It would provide 2,878 miles of mixed-use roads and boost motorized trails to 771 miles, and limit cross-country motorized use to 473,500 acres for game retrieval and dispersed camping only.

The MVUM would make user compliance and law enforcement easier. Higher user numbers could bring more business to adjacent communities, and motorized users would find a planned travel system designed to meet their needs.

of game retrieval or dispersed camping in specified areas. Allowing higher levels of motorized recreation use on the Forest and close to communities is intended to provide more economic opportunity for nearby communities and businesses. To a lesser degree, this alternative considers effects of use on natural resources, and the concerns of adjacent landowners, by allowing more miles of use near adjacent private lands.

Alternative C would increase the number of miles of motorized forest trails from 36 to

771 miles; and increase the mileage of forest roads where motorized mixed use is allowed from 160 to 2,878 miles (see Table 3). The number of motorized-use trailheads would increase from 7 to 34. Three small concentrated motorized cross-country areas are proposed in this alternative. These three areas total 10 acres in size. Two would be located on the Bearlodge Ranger District (Bearlodge Pit on the north end, and Hain Spring Pit in the south); a third would be located on the Northern Hills Ranger District at the Spearfish Quarry near the City of Spearfish. These areas could serve as practice areas for novice riders, or play areas for younger riders. Other than these three areas, motorized cross-country use would be reduced from 864,000 acres to 473,500 acres, for the sole purposes of game retrieval or dispersed camping. Total NFS route mileage used would decrease from 8,971 to 5,173 miles, and the number of motorized road and trail crossings on perennial streams would decrease from over 1,700 to 536. Permits would need to be secured prior to any in-water construction work on five proposed new perennial stream crossings, pursuant to Section 404 of the Clean Water Act (see Appendix B, design criteria for fisheries and hydrology). Stormwater permits under Section 402 would be required for construction exceeding one acre in size on trailheads or other facilities.

This alternative would provide for motorized mixed use (meaning use by both highway-legal and non-highway-legal motor vehicles) on a designated system of roads (primarily Level 2 with some Level 3, 4 and 5 roads). In response to recommendations from the NFAB, and scoping comments, this system would feature travel loops within concentrated motorized use areas, and routes connecting CMUAs.

**Table 3. Motorized recreation opportunities in Alternative C**

Indicators	Alt. C	Current condition
<b>Roads</b>		
Miles of road open to all vehicles ( <i>motorized-mixed-use roads</i> )	2,878	160
Miles of road open to highway legal vehicles only ( <i>non-highway-legal vehicles prohibited</i> )	704	3,580
<b>Total miles of roads</b>	<b>3,582</b>	<b>3,740</b>
<b>Trails</b>		
Miles of trail open to all vehicles	154	0
Miles of trail open to vehicles 50" or less in width	460	36
Miles of motorcycle trail	134	0
Miles of special designations	22	0
<b>Total miles of trails</b>	<b>771</b>	<b>36</b>
<b>Total miles of proposed motorized routes</b>	<b>4,353</b>	<b>3,776</b>
Number of motorized-use trailheads	34	7
<b>Area open to Motorized Cross-country Use</b>		
Acres open to dispersed camping (motorized)	184,000	864,000
Acres open to game retrieval (motorized)	373,000	864,000
Acres open to cross-country travel (non-game retrieval)	10	864,000
<b>Total area open to motorized cross-country travel (acres)</b> <i>(Note: not additive)</i>	<b>473,500</b> <b>(limited)</b>	<b>864,000</b>

**Vehicles** - By providing for use by both highway-legal and non-highway-legal motor vehicles, this alternative, if selected, would pre-empt (not be in accord with) South Dakota State law in its current form, which requires that only highway-legal motor vehicles may use public roads. Wyoming State law provides for use of both highway-legal and non-highway-legal motor vehicles on certain roads officially recognized (enrolled) by the State. If this alternative were selected, the Forest Service would comply with Wyoming State law by enrolling all designated roads in the Wyoming program.

**Vehicle Operators** - It is important to understand that only users with a valid state driver's license (from any state) would be legally allowed to operate motor vehicles on the roaded portion of the motorized travel system in this alternative. Unlicensed operators could legally operate a motor vehicle only on the trail portion of the system. This would comply with current state law in both South Dakota and Wyoming. Please refer to Table 6 for more information on vehicle and operator requirements, and motorized-mixed-use opportunities available under this alternative. Please refer to Table 7 for parameters further describing this alternative, and to compare this alternative to others.

**Cross-country Use** - Unrestricted motorized cross-country use would be allowed in three small concentrated cross-country areas as described earlier. Other than this, limited motorized cross-country use would be allowed to retrieve harvested elk and deer in certain large designated areas; and, for motorized dispersed camping within 300 feet of certain designated roads. Motorized cross-country travel would not be allowed for any other purpose or in any other location, with certain exceptions provided by law. Total area available to limited motorized cross-country use in this alternative would be 473,500 acres.

In their scoping comments, the State wildlife management agencies of South Dakota and Wyoming requested that hunters be allowed adequate access to much of the Forest to retrieve harvested game using motorized vehicles. The Forest Service attempted to plot a one-mile distance off certain designated roads for such use, as proposed by the State of South Dakota, but found that this approach left slivers and small areas of land on which this use would not be allowed. The Forest Service felt this would pose problems for hunters attempting to stay within the allowed distances off of roads.

In an effort to respond to the States and others who commented, and to provide a range of alternatives for motorized game retrieval, the Forest Service chose instead to delineate areas within which motorized game retrieval would be allowed. These large areas do not include those management areas where motorized cross-country use is specifically prohibited, such as wilderness; or those areas with a year-round closure to motorized cross-country use. Although the Forest Service believes hunters would find it easier to comply with this approach, it is not technically consistent with the Travel Rule, which stipulates that any motorized game retrieval areas be designated by distance off of roads. For this reason, any decision to implement this alternative may require some modification to comply with the Travel Rule.

**A Forest Plan amendment** would be required to implement this alternative. Changes to existing Forest Plan direction would take two general forms. First, where existing objectives provide quantities for road and trail mileage and cross-country area, these would be updated to conform to the quantities provided by this alternative. Second, certain standards and guidelines would be updated to conform to the Final Rule and amended regulations, to provide that motorized vehicle use would be allowed on roads, trails, and areas only as shown on the motor vehicle use map or as contained in a Forest Travel Order. Refer to Appendix F for specific

changes to existing Forest Plan direction proposed under this alternative. It is anticipated that these proposed changes would constitute a minor or nonsignificant Forest Plan amendment.

### *Alternative D*

This alternative would provide a smaller active motorized transportation system than that provided by any other alternative. No cross-country motorized opportunity would be allowed under this alternative. The intent of this alternative is to limit the level and likelihood of effects on natural and cultural resources through a smaller motorized travel system. This alternative is intended to reduce conflicts with nonmotorized recreationists and could provide more area and solitude for these users. Alternative D would allow less motorized use near adjacent private

**Alternative D** would provide the smallest motorized travel system, and would emphasize user safety. It would provide 580 miles of mixed-use roads and 320 miles of motorized trails, and prohibit motorized cross-country use for any reason, with exceptions.

The motor vehicle use map would make user compliance and law enforcement easier. Resource damage, conflicts with nonmotorized recreationists and system maintenance costs would be reduced, and motorized users would find a planned travel system designed to meet their needs.

landowners than any other alternative, and would provide fewer trailheads near adjacent communities and businesses.

Alternative D would increase the number of miles of motorized forest trails from 36 to 320 miles; and increase the mileage of forest roads where motorized mixed use is allowed from 160 to 580 miles (see Table 4). The number of motorized-use trailheads would increase from 7 to 23. No motorized cross-country use would be allowed for any purpose (with exceptions for emergency and administrative access as described above). Total NFS route mileage used would decrease from over 8,900 miles to 4,018 miles, and the

number of motorized road and trail crossings on perennial streams would decrease from over 1,750 to 455. Permits would need to be secured prior to any in-water construction work on two proposed new perennial stream crossings, pursuant to Section 404 of the Clean Water Act (see Appendix B, design criteria for fisheries and hydrology). Stormwater permits under Section 402 would be required for construction exceeding one acre in size on trailheads or other facilities. Please refer to Table 7 for parameters further describing this alternative, and to compare this alternative to others.

This alternative would provide for a diversity of motorized uses similar to that in other alternatives. However, it would provide a lower total mileage of motorized-mixed-use roads in order to reduce the safety risk to users of non-highway-legal OHVs and motorcycles from larger vehicles on higher-speed roads. Motorized mixed use would be allowed only on Level 2 roads within concentrated motorized use areas. No motorized mixed use would be allowed between CMUAs. This means that users of non-highway-legal vehicles transiting from one CMUA to another would need to transport their vehicles using highway-legal vehicles. No motorized mixed use would be allowed on Level 3, 4 or 5 roads under this alternative in South Dakota, but such use would still be allowed on 118 miles of Level 3, 4 and 5 roads currently enrolled in the Wyoming ORV program.

**Vehicles** - By providing for use by both highway-legal and non-highway-legal motor vehicles, this alternative would pre-empt (not be in accord with) South Dakota State law in its current form, which requires that only highway-legal motor vehicles may use public roads. Wyoming State law provides for use of both highway-legal and non-highway-legal motor vehicles on

certain roads officially recognized (enrolled) by the State. The Forest Service would comply with Wyoming State law by enrolling all designated roads in the Wyoming program.

**Table 4. Motorized recreation opportunities in Alternative D**

Indicators	Alt. D	Current condition
<b>Roads</b>		
Miles of road open to all vehicles ( <i>motorized-mixed-use roads</i> )	580	160
Miles of road open to highway legal vehicles only ( <i>non-highway-legal vehicles prohibited</i> )	2,297	3,580
<b>Total miles of roads</b>	<b>2,877</b>	<b>3,740</b>
<b>Trails</b>		
Miles of trail open to all vehicles	112	0
Miles of trail open to vehicles 50" or less in width	181	36
Miles of motorcycle trail	21	0
Miles of special designations	6	0
<b>Total miles of trails</b>	<b>320</b>	<b>36</b>
<b>Total miles of proposed motorized routes</b>	<b>3,197</b>	<b>3,776</b>
Number of motorized-use trailheads	23	7
<b>Area open to Motorized Cross-country Use</b>		
Acres open to dispersed camping (motorized)	0	864,000
Acres open to game retrieval (motorized)	0	864,000
Acres open to cross-country travel (non-game retrieval)	0	864,000
<b>Total area open to motorized cross-country travel (acres)</b> (Note: not additive)	<b>0</b>	<b>864,000</b>

**Vehicle Operators** - It is important to understand that only users with a valid state driver's license (from any state) would be legally allowed to operate motor vehicles on the roaded portion of the motorized travel system in this alternative. Unlicensed operators could legally operate a motor vehicle only on the trail portion of the system. This would comply with applicable law in both South Dakota and Wyoming. Please refer to Table 6 for more information on vehicle and operator requirements, and motorized-mixed-use opportunities available under this alternative.

**Cross-country Use** - No cross-country motorized travel would be allowed in this alternative, with certain exceptions as described earlier.

**A Forest Plan amendment** would be required to implement this alternative. Changes to existing Forest Plan direction would take two general forms. First, where existing objectives provide quantities for road and trail mileage and cross-country area, these would be updated to conform to the quantities provided by this alternative. Second, certain standards and guidelines would be updated to conform to the Final Rule and amended regulations, to provide that motorized vehicle use would be allowed on roads, trails and areas only as shown on the motor vehicle use map or as contained in a Forest Travel Order. Refer to Appendix F for specific

changes to existing Forest Plan direction proposed under this alternative. It is anticipated that these proposed changes would constitute a minor or non-significant Forest Plan amendment.

### *Alternative E*

This alternative represents the minimum actions needed to comply with the Travel Management Rule. It would designate the entire existing system of open roads and motorized trails and amend the Forest Plan to accommodate this system. A motor vehicle use map would be issued, designating a minimally active motorized travel system to accommodate motorized recreation desires. This alternative would not allow any motorized cross-country travel.

The intent of this alternative is to reduce implementation costs and the impacts of motorized use to natural and cultural resources, and to maximize the effectiveness of limited management resources. To a lesser degree, this alternative addresses the issues of recreational user experience

and socioeconomic effects. This alternative would allow the same level and miles of motorized uses on routes near adjacent private lands as Alternative A, but would allow no motorized use in areas off designated routes. No concentrated motorized use areas (CMUAs) would be provided in this alternative.

**Alternative E** would provide an MVUM showing the existing travel system. Alternative E would provide 160 miles of motorized-mixed-use roads and 36 miles of motorized trails. It would prohibit motorized cross-country use for any purpose, with exceptions.

The MVUM would make user compliance and law enforcement easier. Resource damage, conflicts with nonmotorized recreationists and maintenance costs would be reduced. Motorized users would find a minimal planned travel system designed to meet their needs.

Alternative E would provide the same number of miles of motorized forest trails (36), and the same mileage of forest roads where motorized mixed use is allowed (160) as Alternative A (see Table 5). The number of motorized-use trailheads would remain at 7. No

motorized cross-country use would be allowed for any purpose (with exceptions for emergency and administrative use as described above). Total NFS route mileage used would decrease from over 8,600 miles to 4,596 miles, and the number of motorized road and trail crossings on perennial streams would decrease from more than 1,700 to 547, as in Alternative B. No new stream crossings are proposed in this alternative. Please refer to Table 7 for parameters further describing this alternative, and to compare this alternative to others.

**Vehicles** - This alternative would provide for motorized mixed use (meaning use by both highway-legal and non-highway-legal motor vehicles) on a designated system of roads (primarily Level 2 with some Level 3, 4 and 5 roads) in Wyoming only. South Dakota State law requires that only highway-legal motor vehicles may use public roads. Wyoming State law provides for use of both highway-legal and non-highway-legal motor vehicles on certain roads officially recognized (enrolled) by the State. If this alternative were selected, it would comply with South Dakota State law because it would allow no motorized mixed use on public roads. It would comply with Wyoming State law because all motorized-mixed-use roads would be enrolled in the Wyoming ORV program.

**Vehicle Operators** - It is important to understand that only users with a valid state driver's license (from any state) would be legally allowed to operate motor vehicles on the roaded portion of the motorized travel system in this alternative. Unlicensed operators could legally

operate a motor vehicle only on the trail portion of the system. This would comply with current state law in both South Dakota and Wyoming. Please refer to Table 6 for more information on vehicle and operator requirements, and motorized-mixed-use opportunities available under this alternative.

**Table 5. Motorized recreation opportunities in Alternative E**

<b>Indicators</b>	<b>Alt. E</b>	<b>Current condition</b>
<b>Roads</b>		
Miles of road open to all vehicles ( <i>motorized-mixed-use roads</i> )	160	160
Miles of road open to highway legal vehicles only ( <i>non-highway-legal vehicles prohibited</i> )	3,580	3,580
<b>Total miles of roads</b>	<b>3,740</b>	<b>3,740</b>
<b>Trails</b>		
Miles of trail open to all vehicles	0	0
Miles of trail open to vehicles 50" or less in width	36	36
Miles of motorcycle trail	0	0
Miles of special designations	0	0
<b>Total miles of trails</b>	<b>36</b>	<b>36</b>
<b>Total miles of proposed motorized routes</b>	<b>3,776</b>	<b>3,776</b>
Number of motorized-use trailheads	7	7
<b>Area open to Motorized Cross-country Use</b>		
Acres open to dispersed camping (motorized)	0	864,000
Acres open to game retrieval (motorized)	0	864,000
Acres open to cross-country travel (non-game retrieval)	0	864,000
<b>Total area open to motorized cross-country travel (acres)</b> <i>(Note: not additive)</i>	<b>0</b>	<b>864,000</b>

**Cross-country Use** - No motorized cross-country travel would be allowed in this alternative, with certain exceptions as described earlier.

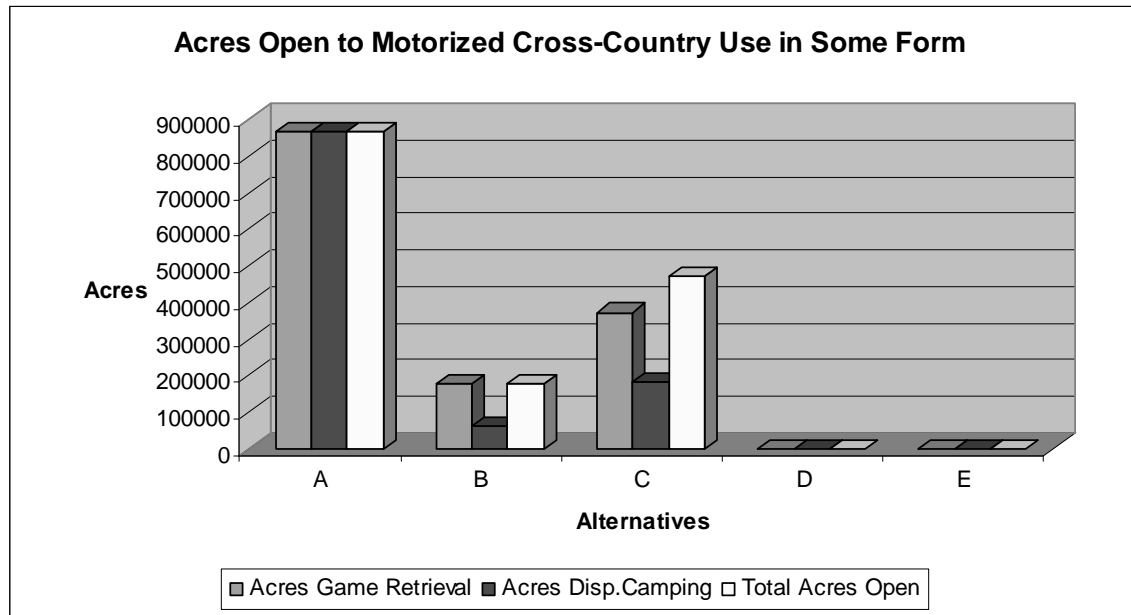
**A Forest Plan amendment** would be required to implement this alternative. Certain standards and guidelines would be updated to conform to the Final Rule and amended regulations, to provide that motorized vehicle use would be allowed on roads, trails, and areas only as shown on the motor vehicle use map or as contained in a Forest Travel Order. Refer to Appendix F for specific changes to existing Forest Plan direction proposed under this alternative. It is anticipated that these proposed changes would constitute a minor or non-significant Forest Plan amendment.

**Table 6. Consistency with State traffic law, and non-highway-legal vehicle travel opportunity by alternative**

Alternative	Non-hwy-legal vehicles allowed on SD public roads?*	Valid State Operator License Required?	Motorized-mixed-use road miles (non-hwy-legal use allowed)	Motorized trail miles (non-hwy-legal use allowed)	Total non-highway-legal vehicle travel mileage to designate
Original Proposed Action	No	Yes			
Alt. A	No	Yes	160 miles	36 miles	196 miles
Alt. B	Yes**	Yes	2226	663	2889
Alt. C	Yes**	Yes	2878	771	3649
Alt. D	Yes**	Yes	580	320	900
Alt. E	No	Yes	160	36	196

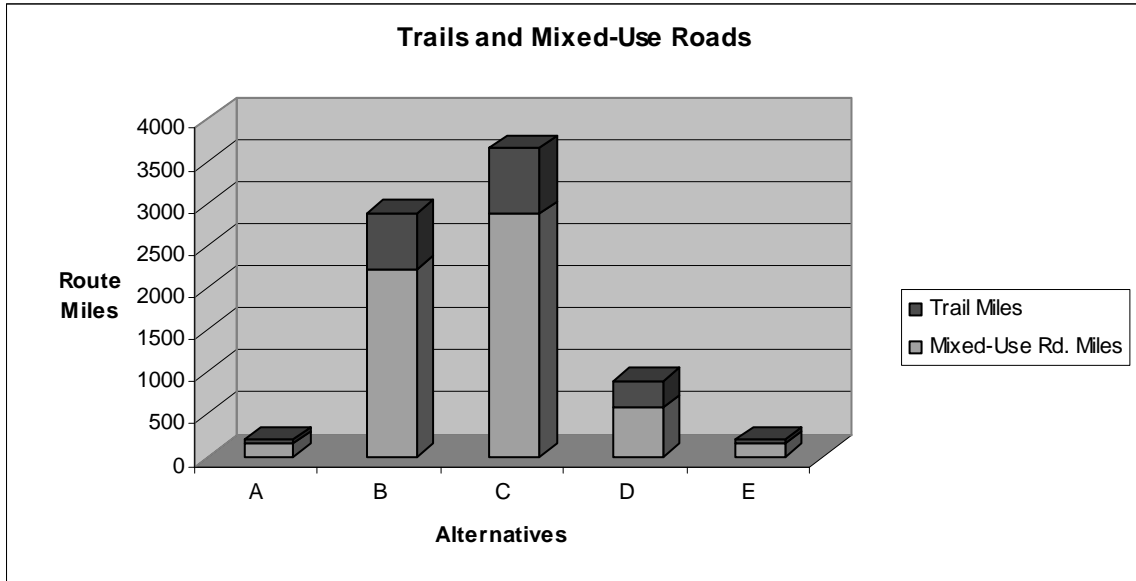
\* In Wyoming, non-highway-legal vehicles are allowed only on roads enrolled in the State program. In Alternatives B, C and D, non-highway-legal vehicles would be allowed on all designated roads in Wyoming because they would be enrolled in the State program.

\*\* Alternatives B, C and D would pre-empt (not conform to) South Dakota State law for vehicle registration, so non-highway-legal vehicles would be allowed on motorized-mixed-use roads. No alternative would pre-empt any State requirement for operator licensing.

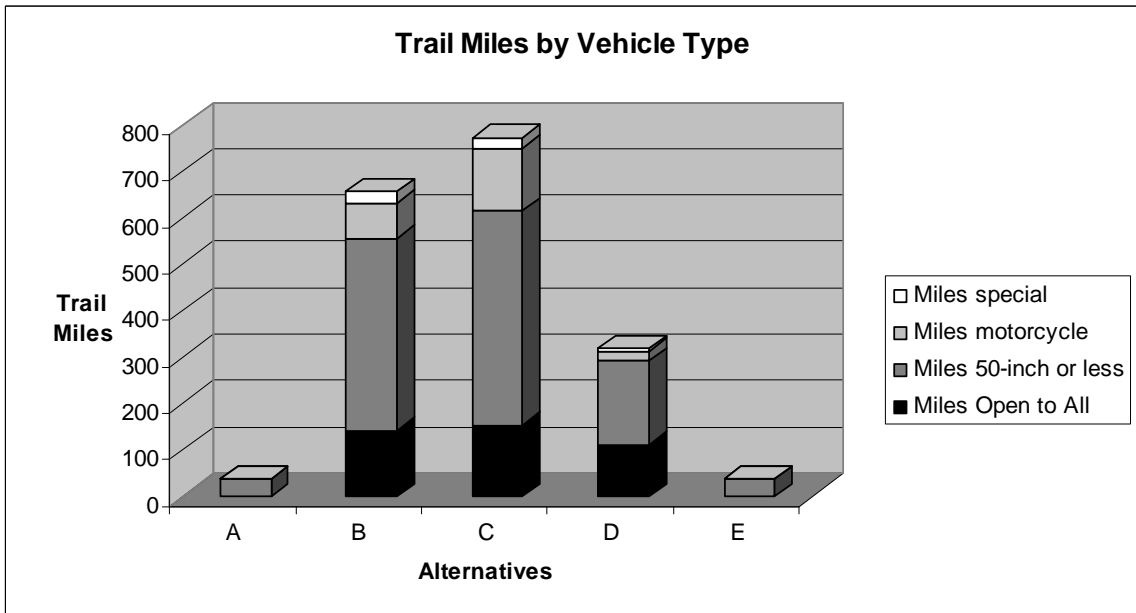


**Figure 2. Acres open to motorized cross-country use under each alternative (NOTE: Cross-country travel in Alternatives B and C would be for limited purposes only)**





**Figure 3. Miles of motorized-mixed-use routes by alternative, in terms of trails and mixed-use roads (NOTE: High current use on unauthorized routes is not reflected in this figure, but is shown as cross-country use in Figure 2)**



**Figure 4. Trail mileage in each alternative by vehicle type**

***Alternatives Considered but Eliminated from Detailed Study***

Federal agencies are required by NEPA to rigorously explore and objectively evaluate a range of reasonable alternatives and to briefly discuss the reasons for eliminating any alternatives that were not developed in detail (40 CFR 1502.14). Public comments received in response to the proposed action provided suggestions for alternative methods to achieve the purpose and need. Some of these alternatives may have duplicated the alternatives considered in detail; had high

potential to cause unnecessary environmental harm, or may have been outside the scope of the purpose and need. The Forest considered these other alternatives, but dismissed them from detailed consideration. Those other alternatives, and the reasons they were dismissed, are discussed below.

- 1) The original proposed action was evaluated and dismissed without detailed consideration. Numerous inaccuracies were found in the data, requiring corrections. Also, based on scoping comments from the public and further input from ranger district personnel, routes were added or deleted to better meet the NFAB recommendations. It became increasingly apparent that the original proposed action was obsolete, and for these reasons, it was dismissed. The modified proposed action (Alternative B) carries forward the intent of this original proposal.
- 2) An alternative was considered that would have allowed motorized game retrieval up to one mile, and dispersed camping up to 300 feet, from certain designated roads. Elements of this approach were suggested by several parties during scoping, including wildlife and fish management agencies from the states of South Dakota and Wyoming. The Forest Service found that a strict application of this approach would have created small isolated areas in some places that would not have been open to these activities. These isolated areas would be difficult for National Forest users and law enforcement personnel to identify, and thus would be difficult to comply with as well as to enforce. For these reasons, this alternative was dismissed from detailed consideration. However, this concept was partially adopted in Alternative C to allow motorized game retrieval in certain areas that correspond to about one mile from certain roads, and dispersed camping up to 300 feet from designated roads (see description of Alternative C on page 25.)
- 3) Several respondents to scoping requested that the Forest allow motorized cross-country travel on large areas. The Travel Rule allows this use of NFS lands subject to site-specific analysis. The Forest Service considered permitting such use on large areas but dismissed it from detailed consideration for several reasons. First, current relatively unrestricted motorized cross-country use has begun to have effects to natural and cultural resources that are unacceptable in some areas. The Forest Service anticipates that an increase in such use, especially if concentrated in a smaller area, could foster effects to natural and cultural resources that could become unacceptable. Allowing such effects could conflict with both the agency conservation mission and the recommendation in the NFAB Travel Management Subcommittee report that no unacceptable resource damage should occur as a result of cross-country motorized activity.

As an alternative to unlimited motorized cross-country use, the Forest Service developed the concept of concentrated motorized use areas, or CMUAs, in which high-density motorized road and trail opportunities would be offered. While these would not provide true cross-country experiences, the Forest Service believes that these areas could meet the desires of many users for a similar experience, without the potential for incurring off-route resource damage. Motorized cross-country recreation opportunity is currently offered at other places in the Black Hills region including Railroad Buttes on the Nebraska National Forest, and several private facilities in the Spearfish, Rapid City, and Hermosa areas. Finally, this activity is included in Alternative A as part of the current condition. Limited motorized cross-country use would also be allowed under Alternatives B and C in the form of game retrieval and dispersed camping, and in Alternative C in the form of three small cross-country practice areas.

- 4) Various individuals and groups suggested that numerous individual routes that are not included in any of the action alternatives be opened or remain open to motorized use. Existing and proposed routes were individually evaluated by ranger district and ID Team personnel in a detailed review of routes in each district. Individual routes may have been dismissed from further consideration for one or several reasons, including: site-specific conflicts with natural or cultural resources; conflicts with other users; concerns over jurisdiction; or because they may not have fit the concept of one or more of the alternatives.
- 5) The Norbeck Society and other organizations suggested the original proposed action be modified in several ways. The Society recommended that additional “Walk-in Only Areas” be designated, and that any motorized trails that might affect these areas should not be considered for designation. The recommendation to designate additional “Walk-in Only Areas” was evaluated by the ID team and dismissed for several reasons. First, the purpose and need for this project is to bring the Forest into compliance with the 2005 Travel Management Rule and designate motorized routes; designation of nonmotorized routes is not the focus of this project. Second, the Forest Plan currently contains direction regarding nonmotorized trail opportunities. Regarding motorized trails that might affect these areas, the analysis in this document will consider the effects of motorized route designation on nonmotorized recreation opportunities. Finally, the Forest Service incorporated concepts in the Norbeck Society recommendation into Alternative D, and believes that the concern underlying this recommendation is addressed in that alternative.
- 6) The Blue Ribbon Coalition and other organizations asked the Forest Service to formulate and consider an alternative that would maximize motorized recreation opportunities. Alternative C was developed to provide a high level of motorized recreation. The Forest Service considered other alternatives that would provide even higher levels of motorized recreation opportunity. These alternatives were evaluated by the ID team and dismissed from further consideration for several reasons. First, it was found that motorized recreation at higher levels than shown in Alternative C violated Forest Plan standards for protection of resources. Second, it was found that many additional motorized routes that were considered did not enhance or fit with the concept of Alternative C. Specifically, many of these routes did not provide looped route opportunities or did not connect looped routes to form a coherent, manageable travel system. Third, some routes evaluated were found to cross other jurisdictions that would have required additional work and NEPA analysis in order to acquire easements or rights-of-way to allow public use. And finally, the addition of some proposed routes would continue or increase high sound or noise levels from motorized use near adjacent private lands.

### *Comparison of Alternatives*

Table 7 provides information related to the indicators listed for each issue in Chapter 1. Following this table is a summary narrative comparison of the alternatives that interprets information shown here. This information is derived from the more extensive analysis and discussion in Chapter 3.

**Table 7. Comparison of indicator measures for the alternatives**

Indicator Measure	Alternative				
	A	B	C	D	E
<b>ISSUE 1 – Effects on Natural and Cultural Resources</b>					
<b><i>Botanical Resources</i></b>					
Total miles of open NFS motorized routes	3,776	4,129	4,353	3,197	3,776
Miles of routes within 400 feet of riparian areas	2,050	2,186	2,271	1,739	2,050
Miles/acres of routes within spruce habitat	100	100	97	83	100
Miles of motorized routes in hardwood habitat	179	208	225	154	179
<b><i>Wildlife Habitat Resources</i></b>					
Total miles of open NFS motorized routes	3,776	4,129	4,353	3,197	3,776
Acres open to dispersed camping (motorized)	864,000	63,500	184,000	0	0
Acres open to game retrieval (motorized)	864,000	179,000	373,000	0	0
Acres open to cross-country travel (non-game retrieval)	864,000	0	0	0	0
<i>Total area open to motorized cross-country travel (acres) (Note: acres not additive)</i>	864,000	179,000	473,500	0	0
Miles of motorized routes in ponderosa pine habitat	2,661	2,968	3,156	2,266	2,661
Miles of motorized routes in spruce habitat	100	100	97	83	100
Miles of motorized routes in hardwood habitat	179	208	225	154	179
Miles of routes within 400 feet of riparian areas	2,050	2,186	2,271	1,739	2,050
Miles of motorized routes in grass cover type	647	673	684	562	647
<b><i>Hydrology and Fisheries</i></b>					
Number of motorized road and trail crossings on perennial streams	1,778	547	536	455	547
Miles of road/trail within 30 feet of a perennial stream	59	20	20	16	17
Miles of road/trail within 119 feet of a perennial stream	285	125	125	100	110
Motorized access for fisheries management and angler access	Available	No change	No change	No change	No change
Miles of motorized routes in walk-in fisheries	0.0	0.0	Less than 0.5	0.0	0.0
<b><i>Soils</i></b>					
Total miles of open NFS motorized routes	3,776	4,129	4,353	3,197	3,776
Acres open to dispersed camping (motorized)	864,000	63,500	184,000	0	0
Acres open to game retrieval (motorized)	864,000	179,000	373,000	0	0
Acres open to cross-country travel (non-game retrieval)	864,000	0	0	0	0
<i>Total area open to motorized cross-country travel (acres) (Note: not additive)</i>	864,000	179,000	473,600	0	0
<b><i>Range and Noxious Weeds</i></b>					
Total miles of open NFS motorized routes	3,776	4,131	4,353	3,197	3,776
Acres open to dispersed camping (motorized)	864,000	63,500	184,000	0	0
Acres open to game retrieval (motorized)	864,000	179,000	373,000	0	0
Number of motorized-use trailheads	7	31	34	23	7

Table 7. Comparison of indicator measures for the alternatives

Indicator Measure	Alternative				
	A	B	C	D	E
<b>ISSUE 2 – Effects on Recreation Opportunities</b>					
<b>Forest Roads (ML 2-5)</b>					
Miles of road open to all vehicles ( <i>motorized-mixed-use</i> )	160 (WY only)	2,226 (SD & WY)	2,878 (SD & WY)	580 (SD & WY)	160 (WY only)
Miles of road open to highway legal vehicles only (not mixed-use)	3,580	1,240	704	2,297	3,580
<b>Total miles of open NFS forest roads (Maintenance Levels 2-5)</b>	<b>3,740</b>	<b>3,466</b>	<b>3,582</b>	<b>2,877</b>	<b>3,740</b>
<b>Forest Trails</b>					
Miles of trail open to all vehicles	0	147	154	112	0
Miles of trail open to vehicles 50 in. or less in width	36	414	460	181	36
Miles of motorcycle trail	0	76	134	21	0
Miles of special designations	0	25	22	6	0
<b>Total miles of open NFS forest trails</b>	<b>36</b>	<b>663</b>	<b>771</b>	<b>320</b>	<b>36</b>
<b>Total miles of open NFS forest roads and trails</b>	<b>3,776</b>	<b>4,129</b>	<b>4,353</b>	<b>3,197</b>	<b>3,776</b>
Miles of NFS forest roads open to public use:					
ML 2	3,083	2,827	2,939	2,241	3,083
ML 3	510	493	497	490	510
ML 4	143	142	142	142	143
ML 5	4	4	4	4	4
<b>Total miles of open NFS forest roads, ML 2-5</b>	<b>3,740</b>	<b>3,467</b>	<b>3,582</b>	<b>2,878</b>	<b>3,740</b>
Public road miles of other jurisdictions across NFS	820	820	820	820	820
Total miles of forest trails	36	663	771	320	36
Unauthorized route miles used on NFS lands	4,375	0	0	0	0
<b>Total route miles used on NFS lands</b>	<b>8,971</b>	<b>4,950</b>	<b>5,173</b>	<b>4,018</b>	<b>4,596</b>
Number of motorized-use trailheads	7	31	34	23	7
Acres open to motorized dispersed camping	864,000	63,500	184,000	0	0
Acres open to motorized game retrieval	864,000	179,000	373,000	0	0
Acres open to cross-country travel (non-game retrieval)	864,000	0	0	0	0
<b>Total area open to motorized cross-country travel (acres) (Note: not additive)</b>	<b>864,000</b>	<b>179,000 (limited use)</b>	<b>473,500 (limited use)</b>	<b>0</b>	<b>0</b>
Concentrated cross-country areas less than 5 acres		0	3 areas; 10 acres total	0	0
<b>Affecting nonmotorized opportunity</b>					
Miles of NFS motorized routes within ½-mile of a nonmotorized trail	318	358	382	211	318
Miles of road or trail closed to motorized use in SPNM or RNNM ROS classes	72 miles/ 333 miles	70 / 331	70 / 311	84 / 363	72 / 333

**Table 7. Comparison of indicator measures for the alternatives**

Indicator Measure	Alternative				
	A	B	C	D	E
<b>ISSUE 3 – Effects of Transportation System Design on Management Capabilities</b>					
Miles of road converted to trail (may incur higher maintenance costs)	0	207	205	146	0
Miles of ML 2 roads with motorized mixed use	49	1,914	2,537	461	48
Miles of ML 3, 4 and 5 roads with motorized mixed use	111	312	340	118	112
<b>Total miles of ML 2-5 roads with motorized mixed use (expect higher maintenance costs from higher use levels)</b>	<b>160</b>	<b>2,226</b>	<b>2,878</b>	<b>580</b>	<b>160</b>
Number of motorized trailheads (will incur costs to maintain, and to rehabilitate if vandalized)	7	31	34	23	7
Number of dead-end spurs less than or equal to one mile in length/miles of these spurs (may require more vigilant law enforcement patrol)	1,739 / 774 miles	1,301 / 597 mi	1,318 / 612 mi	1,035 / 463 mi	1,739 / 774 mi
Miles of NFS forest roads by maintenance level (ML):					
ML 1	1,316	1,358	1,260	2,062	1,316
ML 2	3,083	2,827	2,939	2,241	3,083
ML 3	510	493	497	490	510
ML 4	143	142	142	142	143
ML 5	4	4	4	4	4
<b>Total miles of NFS forest roads</b>	<b>5,056</b>	<b>4,824</b>	<b>4,842</b>	<b>4,939</b>	<b>5,056</b>
<b>Total miles of forest trails</b>	<b>36</b>	<b>663</b>	<b>771</b>	<b>320</b>	<b>36</b>
<b>Total NFS forest road and trail miles to maintain</b>	<b>5,092</b>	<b>5,487</b>	<b>5,613</b>	<b>5,259</b>	<b>5,092</b>
Unauthorized routes used on NFS lands (Not maintained, but may need rehabilitation)	4,375	0	0	0	0
<b>ISSUE 4 – Social and Economic Concerns</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
Miles of designated NFS motorized routes through or within 300 feet of non-NFS lands	504	490	500	423	504
Number trailheads within 3 miles of a gateway community	0	10	11	7	0
Total miles of proposed routes open to motorized use	3,776	4,129	4,353	3,197	3,776

### *Comparison of Alternatives by Issue*

This section briefly compares the five alternatives studied in detail in this DEIS. The alternatives are described and compared in terms of the effects each would have on the key issues described in Chapter 1. The preceding table displays comparative summaries of the effects of each alternative as well. The environmental consequences that could be expected from implementing each of the alternatives are more fully described in Chapter 3 of this document and information contained in the project file.

## Issue 1 – Effects on Natural and Cultural Resources

**The soil resource** would see the most risk of disturbance from cross-country motorized use under Alternative A, followed by Alternatives C, B, D, and E. Reducing the area open to motorized cross-country use would also give the greatest benefit to retaining or improving vegetative productivity of the soil resource. Levels of road and trail miles open to motorized use could indirectly affect soils through more OHV parking on the edge of the road or trail, more route maintenance needed, and more time needed for recovery. Alternatives C, B, and A would have the greatest effects, with Alternatives D and E less.

**Concerning hydrology and fisheries**, the alternatives with the most stream crossings and roads close to streams would contribute the most sediment, but generally, all action alternatives are similar in effects to each other and would have less adverse effects than the current situation (Alternative A). Alternatives B, C, and E reduce the number of water crossings by almost 70 percent, and Alternative D by 75 percent. With respect to miles of roads and trails within 30 and 119 feet of perennial streams, Alternatives B and C reduce the mileage by over 50 percent, and Alternatives D and E by over 60 percent.

Designation of new trailheads, game retrieval, and dispersed camping would not be likely to have adverse effects on the water resource if design criteria are followed. Alternatives with more acreage open to some form of cross-country use would potentially have more effects on wetlands, with Alternative A having the most acreage open to this use. Alternatives C and B have less acreage open, respectively, and both would limit motorized cross-country use to game retrieval and dispersed camping only. Alternatives D and E would have by far the least acreage open to this use.

**Wildlife habitat and species** would see a net benefit from implementing any of the action alternatives due to the closing of areas to motorized cross-country travel. Alternative D would be the most beneficial, followed by Alternatives E, B, and C. The effects of motorized game retrieval in Alternatives B and C could be expected to be minor. Alternative C would have the most road and trail miles open to motorized use, and would be expected to displace wildlife more than any other alternative, followed by Alternatives B, A, E, and D.

**Regarding effects to botanical and rare plant values**, implementation of any of the action alternatives would be expected to have a net positive effect on native plant species in several habitat types due to the amount of area that would be closed to motorized cross-country travel. The effects of motorized cross-country game retrieval on plant species in Alternatives B and C is expected to be minor since the use would occur outside the reproductive season for most species. Alternative D would have the lowest number of route miles in hardwood habitat and within 400 feet of riparian areas, and thus show the greatest benefit; Alternatives B and C would have the highest number of route miles and show the least benefit; and Alternatives A and E would be between these. In spruce habitat, Alternative D would have the lowest number of route miles, decreasing about 17 percent from current levels; Alternatives A, B, C and E would be about equal in route mileage. All species of sensitive plants would be expected to persist in the project area if design criteria are implemented to avoid known occurrences. The action alternatives would provide a net benefit to these species by reducing or eliminating motorized cross-country travel.

With respect to **effects on the range resource, livestock grazing, and the potential for noxious weed spread**, the main indicators are total miles of road and consequent route density, and acreage open to motorized cross-country use. Alternative A contains the highest concentration of routes, including unauthorized routes, and allows unrestricted access to the greatest acreage. This contributes to matting down or removing area of vegetation, harassment of livestock, and potential for weed spread. Alternatives C, B, E, and D, in that order, would reduce the number and mileage of

motorized routes and acreage open to motorized cross-country use. Alternatives D and E would show the greatest benefits due in large part to their restrictions on motorized cross-country use.

Alternative A would have the most **effects to cultural resources** by potentially allowing motorized cross-country travel to occur on cultural resource sites without any site protection. Alternatives C and B would see less area open to cross-country travel and effects to resources, with Alternatives D and E having no area open to this use. Alternatives B, C, and D would concentrate motorized use on routes within corridors, which could increase the potential severity of impacts to resources in these areas, but this potential could be reduced by site-specific protection measures. Alternative D would have the least impacts overall by reducing the motorized route mileage and eliminating cross-country travel.

**Under all alternatives, access would be provided as needed** for timber and forest fuels management, fire suppression, and mineral exploration. Access for prospecting and mineral development would be provided as appropriate and necessary.

## Issue 2 – Effects on Recreation Opportunities

**Recreation opportunity in terms of route miles available for licensed drivers** on motorized-mixed-use roads and trails, with or without vehicle registration, would be greatest under Alternative C, then B, with much less route mileage under Alternative D. Vehicle registration would be required under Alternatives A and E, with much less route mileage available. Route opportunity available to unlicensed drivers (trails only) with or without vehicle registration would be greatest under Alternative C, then B, with much less mileage under Alternative D, and less yet under Alternative E.

**Motorized cross-country use** for any purpose would be available only under Alternative A. Motorized cross-country use for the limited purposes of game retrieval and dispersed camping only would be allowed on less area in Alternatives C and B, with the largest area in Alternative C. Alternatives D and E would allow no motorized cross-country use for any purpose.

The Recreation Opportunity Spectrum (ROS) is used in the Forest Plan to describe recreation opportunities available in different areas of the Forest. Nonmotorized recreation opportunities are offered in areas with ROS classes of primitive (P), semi-primitive nonmotorized (SPNM), and roaded-natural nonmotorized (RNNM). Under all alternatives, 10 percent of the Forest area would continue to provide these opportunities; primitive ROS designation would be unaffected in the Black Elk Wilderness and Inyan Kara Inventoried Roadless Area; and the ROS standard in research natural areas (RNAs) would be met. The miles of road or trail closed to motorized use in areas of SPNM and RNNM classes would decrease from current levels in Alternatives B and C, representing less potential for nonmotorized route opportunity in these areas; and would increase in Alternative D, representing more potential nonmotorized route opportunity.

**Nonmotorized trail opportunity** across the Forest is currently 311 miles on 35 trails, with another 12 miles of the Centennial Trail shared with motorized users. This opportunity would remain the same under all alternatives. However, based on the number of miles of motorized trail within ½-mile of a nonmotorized trail, Alternative D would have by far the lowest potential for noise disturbance to nearby nonmotorized users, followed by Alternatives A and E, with Alternatives B and C about equal in higher potential to disturb nearby nonmotorized users.

## Issue 3 – Effects of Transportation System Design on Management Capabilities

Travel management under any of the action alternatives would be more easily enforced by law enforcement personnel, because users not complying with the motor vehicle use map could be cited.



Many factors must be considered to estimate system costs. Alternative E would not create a motorized trail system beyond the existing roads and would be the most supportable with current funding levels. Concerning Alternatives B, C, and D, the miles of trails, number of trailheads and miles of roads to be closed would be the factors having the largest effect on long-term costs. Based on these, Alternative D would have much lower costs, with Alternative C and B the most costly, in that order.

Based on the total number of system road and trail miles, Alternative A would have the highest maintenance costs, followed by Alternatives C and B. Alternatives E and D would have the lowest costs, in that order. Increased costs of vandalism could be expected with higher numbers of trailheads. Alternatives B and C have the highest number, with Alternative D less and Alternatives A and E the lowest number.

Based on the number of miles of roads open to motorized mixed use by both highway-legal and non-highway-legal vehicles, Alternative D would be the safest, followed by Alternatives B and D, and then Alternative C.

#### Issue 4 – Social and Economic Concerns

Alternatives B and C are roughly equal as having the most trailheads located within 3 miles of a gateway community, followed by Alternative D. Alternatives A and E have no trailheads located within 3 miles of a gateway community. Based on the number of miles of trail within 300 feet of adjacent private land, Alternative D would have the lowest potential for noise disturbance and increased road and trail dust to neighbors. The other alternatives would all have higher potential, at about the same level.

The population in the Black Hills region, and recreational use of the Forest, would continue to grow under all alternatives. It is expected that user expectations for recreational experiences will continue to be diverse. The loss of OHV recreational opportunities from limiting or prohibiting cross-country motorized travel would be at least partially offset by the enhanced OHV trail system opportunities under Alternatives B, C, and to a limited extent Alternative D. Commercial opportunities could develop on adjacent private properties to provide cross-country areas for OHV users seeking opportunities for activities such as hill-climb, motocross, mud-bogging, or rock-crawling. None of the alternatives would be expected to create any measurable social or economic consequences on the Black Hills region.

## Implementation

The Forest would use the following management strategies to implement the Travel Management Rule:

- **Motor vehicle use map production.** The motor vehicle use map would display designated routes open to wheeled motorized vehicle use. The routes would be designated open to the public by vehicle type and season of use. The map would be available to the public at no cost. The motor vehicle use map would be published annually. Based on any issues including resource impacts or enforcement changes could be made to the motor vehicle use map after its initial publication. The regulations at 36 CFR 212.57, 212.54 recognize that the designations of roads, trails and areas for motorized vehicle use are not permanent and that environmental impacts, changes in demand, route construction, and monitoring conducted under the final rule may lead responsible officials to considering revising designations. Any signage implemented on the ground would coincide with the motor vehicle use map but legal enforcement would be based on the motor vehicle use map, not on on-site signage.

Publishing a motor vehicle use map is the only legal requirement that must be met to establish and enforce the rule.

- **On-the-ground implementation.** The Forest would retain the authority to implement emergency and project level travel planning, either of which could revise designations.
- **Phased implementation.** Any alternative selected based on the analysis in this document will likely require that certain design criteria or mitigating measures be put in place prior to full implementation. As these measures identified in the analysis are completed, the associated routes will be designated on the motor vehicle use map and opened for use as appropriate.
- **Enforcement.** The Forest recognizes that enforcement would be critical to the successful implementation of the Travel Management Rule. The Forest is currently enhancing the available law enforcement staff by increasing field presence of uniformed Forest employees, Forest Protection Officers, and coordinating with other agency enforcement personnel. All Forest personnel have been directed to observe, record, and report violations of our regulations.
- **Partnerships.** The Forest would rely on partnerships to collaboratively work with Federal, State, county, and tribal agencies. The Forest would also collaborate with motorized and nonmotorized recreation user groups, conservationists and others to provide access to NFS lands on routes and in areas that are environmentally and socially sustainable. Currently, many of the Forest's motorized routes and areas are maintained and improved through cooperative relationships.
- **Public education.** The public would be provided with tools to help them access and appropriately use the designated system, including but not limited to the Travel Management home page of the Forest Internet website; the motor vehicle use map in easily usable form, hardcopy and electronic; appropriate route signing; interpretive signs on routes and at trailheads; advertisements and notices in newspapers of record; and other tools as appropriate.
- **Volunteer group participation.** The Forest would establish a trail ranger program in which volunteer groups might participate. Participating volunteer groups would (1) engage users in the management of their National Forest, (2) promote safe and responsible riding, (3) inform and educate riders about trail rules and proper land use, (4) monitor trail activity and reporting unsafe trail conditions or illegal activities, (5) perform light trail maintenance, and (6) respond to and assist trail emergencies.

## Monitoring

The Travel Management Plan would be tiered to the Forest Plan desired conditions, goals and objectives and would follow (or amend) standards and guidelines. The Forest Plan monitoring strategy is designed to evaluate the achievement of desired conditions, goals, objectives, and the effectiveness of standards and guidelines.

Some monitoring questions that pertain to travel management are listed in the Forest Plan monitoring strategy (objectives 309 and 407-422). These questions would be used to determine whether travel management is being effectively managed on the Forest. Monitoring motorized use as part of the Forest's Plan is required in 36 CFR 212.57. The Forest would reference the Forest Plan monitoring strategy where appropriate. The ID team also has compiled additional monitoring needs in the project area, which are needed to validate assumptions used in this planning process, and to verify that the plan is being implemented as intended. Monitoring items will be prioritized by the responsible official if funding is not available to implement all objectives or items listed or referenced in the monitoring plan.

The stream crossing inventory protocol needs to be completed. The purpose is to find crossings not meeting current standards, to prescribe and implement rehabilitation measures to reduce impacts at these crossings. This should be completed by stream, beginning with the streams that are listed as impaired due to temperature and continuing on to the streams with the most crossings. It should be completed for the entire stream, in order to identify abandoned crossings that are no longer used. See Appendix B to the water resource specialist's report.

The effects analysis assumes that monitoring of plant occurrences will occur and that any impacts discovered will be mitigated.