

DEAN PROJECT AREA

Record of Decision

USDA Forest Service
Black Hills National Forest
Bearlodge Ranger District
Sundance, Wyoming



Record of Decision

Dean Project Supplemental Environmental Impact Statement

**USDA Forest Service
Bearlodge Ranger District, Black Hills National Forest
Crook County, Wyoming**

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Background

The Black Hills National Forest, Bearlodge Ranger District proposes to implement multiple resource management actions within the Dean Project Area as guided by the Black Hills National Forest Land and Resource Management Plan (Forest Plan), as amended, and supported by national policy and initiatives such as the National Fire Plan and the President's Healthy Forest Initiative. The Dean Project is described in the Dean Final Supplemental Environmental Impact Statement (SEIS). The Project Area covers about 12,468 acres of National Forest System land and about 2,356 acres of interspersed private land within the Redwater Creek watershed north of Sundance, Wyoming (see Map 1, attached). Resource management actions associated with this decision apply to National Forest System (NFS) lands only and do not include private lands.

The Dean SEIS was issued subsequent to appeal and reversal of the previous decision on the Dean Project (signed May 24, 2005). The SEIS also incorporates direction found in the Phase 2 Amendment to the Forest Plan, which was not in place at the time of the previous analysis and decision.

The purpose of and need for action in the Dean Project Area is to reduce the risk of uncharacteristically intense wildfire behavior and mountain pine beetle infestation, improve terrestrial and aquatic habitats, and reduce the risk of wildlife habitat disturbance and resource damage from motorized vehicle use.

Decision

This Record of Decision documents my decision and reasons for this decision. The Dean Project purpose of and need for action provides the focus and scope for the proposed action and alternatives as related to Forest and national level policy and direction (Final SEIS, Chapter 1). Given this purpose and need, I have reviewed the proposed action (Alternative C), issues identified during the public involvement process, alternatives, and environmental consequences of implementing the proposed action and alternatives disclosed in the Final SEIS. Furthermore, I have carefully considered the public comments received on the Draft SEIS. These comments were invaluable to me in weighing management options. Public feedback, the analysis disclosed in the Final SEIS, information contained in the project record, and management direction and policy considerations contributed collectively to determining the selected alternative. Based on this review, **I have decided to implement Alternative C with modifications.**

My decision modifies Alternative C as described in the Final SEIS to address certain concerns relating to vegetation treatment and travel management. Modifications to Alternative C are minor in scope because they would decrease the treated area by only seven percent and the planned actions were analyzed and associated effects disclosed in the SEIS. Effects of the selected alternative are consistent with those displayed in Table 3. I believe the information contained within the analysis is sufficient to understand the effects of implementing Alternative C as modified.

Modifications to Alternative C (Selected Alternative)

I am modifying Alternative C so that the project accurately reflects current ground conditions and to move additional stands toward late succession forest conditions, reduce motorized recreation conflicts with neighboring landowners, and reduce wildlife disturbance. The following modifications decrease acres treated and miles of road construction, modify the treatment prescription in a block of stands to a prescription analyzed in the Final SEIS under Alternative B, and alter travel management to include features of both Alternatives B and C.

- Timber harvest will not take place in stand 0104050019 (51 acres) due to broken terrain limiting operability. Construction of road 832.2B1 was proposed in conjunction with harvest in this and several other stands. This road will not be constructed. Approximately 0.5 mile of temporary road will be used to access the remaining stands in this area.
- Stands located in the Table Mountain area will be managed to move stand structure toward open-canopy, fire-maintained late succession conditions, as proposed under Alternative B. Affected stands include 0104040004, 0104040006, 0104040007, 0104040016, 0104040017, 0104040019, 0104040023, and 0104040030, for a total of 347 acres. Treatment will consist of thinning from below (to retain the larger trees) and mechanical fuel treatment and/or prescribed burning. Alternative C proposed commercial thinning in these stands, which would have reduced stand density but not enough to create a structure that could be maintained with fire. I believe that creating an open, fire-maintained forest structure in these stands area will enhance the resistance of this area and adjacent private lands to stand-replacing wildfire.
- Approximately 1.15 miles of NFSR 831.1 will be closed year-round from the junction with 833.1 to the private land located in T53N, R62W, Section 30 to reduce trespass and resource damage on private land.
- Alternative C as described in the Final SEIS would have closed the entire project area to off-road motorized travel year-round. I have instead decided to close part of the project area to off-road motorized travel year-round. The closure area (see *Dean Project Area Closure Map*, attached) will be east of NFSR 831.1 (Cow Creek Road), NFSR 843.1 (Farrall Road), and the Two Mile Creek drainage. This area consists of approximately 6,100 acres, including 2,300 acres currently closed in the Rednose Walk-in Hunting Area. The remainder of the project area will be open annually to off-road motorized use August 1 through April 30 and closed May through July to protect big game habitat during elk calving and deer fawning season.
- The Truck Trail (part of NFSR 830.1) will remain closed to motorized vehicles except during snowmobile season.
- A decision on improvements and dredging associated with Hemler Dam and Reservoir has been deferred due to pending inspection by the State and clarification of intentions by the water permit holder. Due to uncertainty over the future of the water use permit, further investment in the impoundment is not warranted at this time.

Forest Plan Amendment

Management Area. Management Area (MA) designation for the entire Dean Project Area is currently 5.4 (big game winter range emphasis). Deer and elk actually use only the lower, south-facing portions of the project area as winter range, generally avoiding the higher elevations due to snow depth. Elk leave the project area during the fall, and winter on private land off-Forest. Deer use most of the project area only during mild winters. During average or severe winters, deer move to crucial winter ranges on adjacent, lower elevation private land. The higher elevation areas are, however, heavily used during the spring, summer, and fall, especially as fawning and calving habitat (Final SEIS pages 1-5, 3-78). I have decided to amend the Forest Plan to change MA designation in part of the project area from 5.4 to 5.6

(forest products, recreation, and big game emphasis). MA 5.6 emphasizes spring and summer range for big game and better reflects actual deer and elk use of the project area. The new MA boundary is shown in Final SEIS Map 3. In the area reassigned to MA 5.6, big game habitat values will continue to be important, but the emphasis will be on spring/summer habitat features rather than winter.

Planned Actions

Vegetation Treatments

Commercial Thinning: Mature pines will be thinned on approximately 1,308 acres. Residual basal area will average 50 to 60 square feet per acre (about 30 feet between boles of trees averaging 14 inches in diameter) but will vary among stands to increase patchiness and diversity on a landscape scale. Smaller, unhealthy, and poorly formed stems will be cut to increase growth of the remaining trees and reduce the risk of loss to mountain pine beetles. Another objective is to raise base canopy height (distance from ground level to the lowest branches), decreasing ladder fuels and potentially fire severity and rate of spread.

Commercial Thinning/POL Thinning: This treatment will take place on 163 acres in pine stands with a mix of mature and smaller trees. For commercial purposes, mature timber (sawtimber) is usually defined as trees over 9 inches in diameter. Products other than logs (POL) are made from trees 5 to 9 inches in diameter. Objectives of this treatment are the same as those listed for commercial thinning. Because of a limited market for smaller diameter wood products and wood chips, timber purchasers often opt not to buy the POL portion of a timber sale. Cutting of these smaller diameter trees is critical to meeting project objectives. Therefore, if a timber purchaser opts not to take POL, these trees will be cut using a service contract or other means.

Mature Stand Enhancement (Thin from Below): This treatment was proposed in Alternative B. Trees less than 10 inches in diameter will be cut in open-canopy mature stands to increase growth and vigor of mature trees and move the stands toward late-successional conditions. This treatment will take place on 347 acres. Treatment will be followed by mechanical fuel reduction or prescribed fire.

Precommercial Thinning: Pine saplings will be thinned to improve growth on approximately 647 acres. This treatment will reduce stand density through retention of the best-formed, healthiest trees. Primary goals of this treatment are to improve growth, preclude stand stagnation, and reduce continuity of fuels. Resulting slash that exceeds Forest Plan guidelines will be piled, chipped, or removed to reduce fire danger and pathogen habitat.

Patch Cuts: Patch cuts, which are clear cuts less than 10 acres in size, will take place on a total of 75 acres. Patch cuts provide small openings that provide forage for various wildlife species until reforested, and will improve the balance of habitat structural stages in the project area through eventual creation of areas of young forest.

Overstory Removal: Where seedlings and saplings have become established, most of the mature trees will be cut to allow maximum growth of the new stand. This treatment will take place on approximately 349 acres.

Commercial Thinning/POL Thinning/Overstory Removal: This treatment will take place in one 78-acre stand. Forest conditions are variable in this stand, and all three treatment types are appropriate in different areas for reduction of fuels and risk of insect infestation.

Shelterwood Seed Cut: This treatment will take place on 940 acres. It will remove some of the mature trees to open the stand and allow young trees to regenerate and become established. Enough large trees will remain after treatment to provide a seed source. Seed cuts will provide forage (grasses and forbs) until pine regeneration becomes established.

Shelterwood Seed Cut/Overstory Removal: This treatment will take place on approximately 1,084 acres in mature stands with patches of pine regeneration. Where there is sufficient regeneration, an overstory removal harvest will take place. This treatment will retain enough large trees to provide a seed source.

Mechanical Fuel Treatment: The objective of planned fuel treatments is to reduce the amount and continuity of fuels across the landscape. Areas of dense forest and ladder fuels will be treated using mechanical means. This treatment will take place on 207 acres.

Prescribed Fire: Prescribed fire will be used to reduce fuels on 2,764 acres. These areas are generally less accessible than stands to be mechanically treated. The purpose of the treatment is to move the area toward Condition Class 1 (where fire regimes are within their historical range of variability) by consuming fuels on the ground and killing lower branches of some trees. This reduction of ladder fuels decreases the chance of a wildfire reaching tree crowns. Prescribed fire will follow mature stand enhancement treatments. Both low- and moderate-complexity burns are planned. Fire lines and a detailed prescribed burn plan will be required for moderate-complexity burns. A prescribed burn plan will be prepared for low-complexity burns, but constructed fire lines will not be necessary. Many stands proposed for commercial thinning will be burned following treatment to reduce fuel loading and prune lower branches on trees. Prescribed fire will also be applied following many shelterwood seed cuts and in the unregenerated areas of some seed cut/overstory removals. The purpose of burning these stands is to reduce surface fuels, diversify stand structure, and increase stand resistance to wildfire by slowing development of ladder fuels.

Logging Slash: Treatment of logging slash after timber harvest is a provision of the standard timber sale contract. Mechanical treatment of these “activity fuels” will take place in all harvest units where fuel loading is calculated to exceed Forest Plan direction.

Hardwood Restoration: Encroaching pine will be removed from 69 acres of aspen to set back succession of these hardwood stands to pine. Treatments have been designed to avoid disturbance of sensitive plant habitat.

Oak Removal: The project area includes many areas of bur oak brush. In the northern Black Hills and Bear Lodge Mountains, bur oak stagnates in a brush form when overcrowded. The objective of this treatment is to reduce competition and allow growth of larger oaks, increasing diversity in wildlife habitat. Larger trees will be selected for retention. Other oaks will be cut, and herbicide will be applied directly to the cut stumps to discourage sprouting. This treatment will take place on 55 acres.

Pine Removal from Riparian Areas: Encroaching pine will be removed from 376 acres of riparian areas to increase grass, forb, and shrub availability. All shrub and hardwood understory will be left in place, and large pine adjacent to stream banks will be left in place to provide bank stability. Treatment boundaries have been designed to avoid sensitive plant habitat.

Transportation System and Travel Management

Alternative C emphasizes non-motorized use of the project area. Off-road motorized travel will be prohibited in part of the project area (see p. 2). Main system roads currently open to vehicle traffic will remain open. Snowmobiles will be permitted off-trail in a 200-foot buffer on either side of established snowmobile trails. In MA 5.4, this buffer will constitute a designated area for the purposes of Forest Plan standard 5.4-9103.

Approximately 24 miles of unclassified roads will be decommissioned (made impassable) as funding allows. Approximately 5 miles of new road will be constructed in order to access treatment units. Nearly 10 miles of road will be reconstructed, and about 67 miles will be maintained (e.g., blading, cleaning of drainage structures) prior to use or used in their existing condition. Access to private land and for permitted special uses will not change.

Log hauling may need to take place year-round to accomplish planned timber sales within contract timeframes. Some of the roads that will be used for hauling are snowmobile trails in winter. For safety reasons, snowmobiles will be prohibited on these roads while hauling is under way. If winter hauling is needed, the Forest will work cooperatively with snowmobile user groups to determine temporary alternate routes during project implementation.

Travel management decisions will be revisited during Forest-wide travel management planning efforts currently underway.

Watershed Projects

The following sediment-producing sites will be addressed (Final SEIS p. 3-13).

- NFSR 831.1K, ford of Middle Redwater Creek: The road will be stabilized and closed year-round.
- NFSR 831.1M, ford of Middle Redwater Creek: The road will be stabilized and gravel added where necessary. The closure gate will be moved to the side of the creek nearer the junction with NFSR 831.1.
- NFSR 831.2G, ford of Middle Redwater Creek: This short, steep section of road will be decommissioned. Other roads provide access to the areas reached by 831.2G.
- NFSRs 833.1B and 833.1C, crossings of North Redwater Creek (Madison Branch): Culverts were previously removed from NFSRs 833.1B and 833.1C, and the fill left behind is entering the creek. These roads will be used to access timber harvest units. Prior to use, culverts will be reinstalled. Following harvest, the culverts will be removed, fill stabilized, and roads closed year-round.
- NFSR 843.2A, crossing of intermittent drainage: During periods of high runoff, flow is diverted from the main channel onto this road and NFSR 843.1. Drainage features will be repaired.
- NFSR 830.3A, crossing of South Fork of Spring Creek: Springs and wet areas exist in the roadbed. This road will be closed.

Table 1 summarizes planned activities. All figures are approximate. Design criteria, mitigation, and monitoring specific to the selected alternative are described in the Final SEIS (page 2-14).

Table 1. Planned Activities

Fuels & Vegetation Treatment (Commercial and Non-commercial Timber Harvest) (acres)	Modified Alternative C
Commercial Thinning	1,308
Commercial/POL Thinning	163
Commercial/POL Thinning/Overstory Removal	78
Shelterwood Seed Cut	940
Shelterwood Seed Cut/Overstory Removal	1,084
Overstory Removal	349
Mature Stand Enhancement (Open Stands)	347
Patch Cuts	75
Pine Encroachment Removal (Hardwood Stands)	69
Pine Encroachment Removal (Riparian)	376
Total	4,789
Fuels & Vegetation Treatment (No Commercial Timber Harvest) (acres)	
Mechanical Fuel Reduction	207
Prescribed Fire	2,764
Oak Removal	55
Precommercial Thinning	647
Total	3,673
Volume Removed	
Sawtimber (MBF)	15,969
Sawtimber (CCF)	31,938
Transportation System (miles)	
Road Construction	5.0
Road Reconstruction	9.84
Road Pre-use Maintenance or Use As Is	67.47
Roads Decommissioned (Unclassified Roads)	23.45
Forest Plan Amendments Required	Management Area

Project Summary

An overview of the issues and alternatives is presented below to give the reader an understanding of the context of the decision disclosed in this document. A more detailed description of the project can be found in Chapters 1 and 2 of the Final SEIS. Any required Army Corps of Engineers Section 404 permits (dredge and fill) will be obtained prior to implementation of relevant activities.

Issues

Comments received during the public scoping process were used to help define issues, develop alternatives and mitigation measures, and analyze effects. A total of fourteen respondents provided feedback during the scoping process. Through review and analysis of the scoping comments and input received, the Dean Project Interdisciplinary (ID) Team identified three key issues related to the proposed activities (Final SEIS pages 1-16 through 1-18). A brief description of the key issues follows.

Fuel and Fire Hazard Reduction. Wildfire hazard and the need to reduce fuels are major public concerns in the Black Hills. These issues are elevated to a higher level of concern with the local public given the massive wildfires that have occurred in recent years throughout the West, including those in the Black Hills. Reduction of fuels and fire hazard is a major focus of the Dean Project. The project area lies within a heavily forested, fire-adapted ponderosa pine ecosystem. Wildfire cannot be eliminated from this setting, but deliberate management of fuels and other vegetation can reduce the potential for uncharacteristically large, intense wildfires. Most respondents supported decreasing the risk of beetle infestation to minimize economic loss and creation of fuels. Feedback received during the early stages of this project indicates that there is broad support in most public sectors for reducing fuels and fire hazard through practices such as prescribed burning and tree thinning.

Travel Management and Recreation. Management of public land transportation systems and motorized recreation is a major issue across the nation. Public desires regarding management of these systems and opportunities for motorized recreation are diverse and often in conflict. Public response to the Dean proposed action reflected these strongly held, often divergent opinions. Some members of the public and interest groups want motorized travel to be unrestricted, both on and off roads. Others accept some restrictions but express a desire for designated motorized-use areas and trail systems. One respondent expressed the opinion that proposed restrictions could cause motorized recreation to be displaced to other areas. Some are concerned about effects on snowmobile use. Road closures could also affect access for resource management and fire suppression. Conversely, many express displeasure with resource damage, private land trespass, disturbance of wildlife, loss of solitude, and user conflicts associated with motorized recreation. Trails solely for non-motorized recreation are also desired.

Wildlife and Fish Habitat. The project area includes both winter range and important fawning and calving habitat for big game. Proposed activities could improve or harm this habitat in various ways. Some respondents, including the Wyoming Game and Fish Department, pointed out that activities such as motorized recreation can disturb animals during sensitive periods. Habitat for a variety of species could be improved by enhancing hardwood stands, meadows, and riparian habitat, and by diversifying landscape-level structure of pine stands. Finescale dace, a native fish species unusual in the Black Hills and Bear Lodge Mountains, is found in the project area.

Alternatives Considered

The proposed action and three alternatives were analyzed in detail. Further description and comparison of alternatives can be found in Chapter 2 of the Final SEIS. Table 2, below, displays indicators for each issue by alternative.

Alternative A (No Action) – NEPA requires study and use of the No Action alternative as a basis for comparing effects of the proposed action and other alternatives. The No Action alternative assumes that none of the elements of the proposed action and other action alternatives would take place in the Dean Project Area in the next 10 to 15 years. Under this alternative, no attempt would be made to actively respond to the purpose of and need for action or the issues raised during scoping. Vegetation and access management would not take place unless authorized by other decisions (see cumulative effects actions starting on Final SEIS page 3-1). Vegetation structure would change over time through growth, natural mortality, and events such as wildfires, storms, and insect and disease outbreaks. Existing access and travel management would persist until modified by future decisions. Ongoing activities such as scheduled road maintenance, treatment of noxious weeds, livestock grazing, and fire suppression would continue.

Alternative B – Alternative B was developed to respond to the purpose of and need for action while emphasizing late-successional forest and non-motorized recreation. This alternative would use various types of thinning and prescribed fire to move many existing stands toward late succession while addressing fire hazard and fuel reduction needs. A limited amount of regeneration harvest (shelterwood seed cuts) would take place to provide forage. Prescribed fire would also be used to maintain natural fuel breaks by decreasing pine encroachment into meadows and hardwood stands. Other habitat enhancement treatments would include hardwood restoration, oak removal, patch cuts, and pine removal from riparian areas.

This alternative addresses the desire of some individuals and groups for emphasis on nonmotorized recreation in the project area. Off-road motorized travel would be prohibited except on designated snowmobile trails and in a 200-foot buffer along these trails. These restrictions would further protect wildlife and other resources. The Truck Trail would be open outside the snowmobile season to all-terrain vehicles (ATVs) and other motorized vehicles no more than 50 inches wide. Approximately 6 miles of new road construction would be necessary to implement proposed vegetation treatments, and 24 miles of unclassified roads would be decommissioned.

Alternative C (Proposed Action) – Alternative C, as modified, is the selected alternative. See Decision section, above.

Alternative D – Alternative D would respond to the purpose and need by focusing fuel reduction treatments near private lands and in other strategic locations. This alternative also includes treatments to enhance non-pine habitats to improve both wildlife habitat and spatial arrangement of fuels. Treatments would be accomplished through mechanical means and extensive broadcast burning. Commercial timber would be produced in some locations as a by-product of fuel break construction and as a result of patch cuts and pine encroachment treatments. Alternative D was developed in response to the view expressed by some during scoping that fuel treatments are most effective when applied in strategic locations, especially adjacent to private land.

Most of the project area would remain open to off-road motorized travel, though off-road motorized travel would continue to be restricted in the Rednose Walk-in Hunting Area. No new roads would be constructed, and about 24 miles of unclassified roads would be decommissioned.

Table 2 compares activities proposed under each alternative.

Table 2. Activities by Alternative

Treatment (acres)	Alt. A	Alt. B	Alt. C	Selected (Alt. C modified)	Alt. D
Fuels & Vegetation Treatment (Commercial and Non-commercial Timber Harvest)					
Commercial Thinning	0	1,019	1,464	1,308	0
Commercial/POL Thinning	0	300	405	163	0
Commercial/POL Thinning/Overstory Removal	0	0	78	78	0
Shelterwood Seed Cut	0	745	940	940	0
Shelterwood Seed Cut/Overstory Removal	0	0	1,105	1,084	0
Overstory Removal	0	0	328	349	0
Mature Stand Enhancement (Open Stands)	0	416	0	347	0
Mature Stand Enhancement (Dense Stands)	0	597	0	0	0
Patch Cuts	0	75	75	75	75
Pine Encroachment Removal (Hardwood Stands)	0	69	69	69	69
Pine Encroachment Removal (Riparian)	0	376	376	376	376
Fuel Breaks	0	0	0	0	2,337
Total	0	3,597	4,840	4,789	2,857
Fuels & Vegetation Treatment (No Commercial Timber Harvest)					
Mechanical Fuel Reduction	0	653	207	207	207
Prescribed Fire	0	797	2,764	2,764	2,764
Oak Removal	0	55	55	55	55
Precommercial Thinning	0	0	647	647	353
Total	0	1,505	3,673	3,673	3,379
Volume Removed					
Sawtimber (MBF)	0	8,344	16,463	15,969	18,290
Sawtimber (CCF)	0	16,688	32,926	31,938	36,580
Transportation System					
Road Construction	0	5.7	5.7	5.0	0
Road Reconstruction	0	9.8	9.8	9.8	7.7
Road Pre-use Maintenance or Use As Is	0	67.5	67.5	67.5	69.5
Roads Decommissioned (Unclassified Roads)	0	24.2	23.5	23.5	24.1
Forest Plan Amendments Required	None	None	Management Area	Management Area	None

Rationale for Decision

I have decided to implement the selected alternative because it best meets the purpose of and need for action as determined by management direction and conditions on the ground, and because it responds well to the issues and public comments. There are four main aspects to my decision – fuels and fire hazard, risk of mountain pine beetle infestation, wildlife habitat, and travel management. For clarity, these action areas are discussed separately below.

Fuels and Fire Hazard Reduction

Purpose and Need – As stated in the Final SEIS, the purpose and need for this project includes the need to reduce fuel loads and the potential for large-scale, intense wildfire. Recent events have dramatically demonstrated the need to reduce the potential for catastrophic wildfire within this area. The past several years have witnessed a series of wildfires within the Black Hills. These have been intense, fast-moving fires that raced for miles through the tree crowns and, in places, consumed all the vegetation and some homes along its path. Residents have been evacuated, firefighters and the public placed at risk, natural resources have been negatively impacted, and substantial economic loss resulted due to these fires.

The selected alternative responds well to the purpose and need. It takes a landscape approach to fuel and fire hazard reduction by strategically locating fuel treatments in a manner that would break up the continuity of biomass and ladder fuels, thereby reducing the risk of wildfires spreading quickly across the planning area. It will maintain and expand naturally fire-resistant hardwoods and meadows and includes prescribed burning to reduce fuels and improve ecosystem health. Creation of additional young structural stages will enhance diversity of wildlife habitat.

Management Direction (National and Forest Plan) – The National Fire Plan, with its associated strategies and agreements, directs Federal agencies to reduce fuels and associated fire hazards within the wildland-urban interface, communities at risk, and other areas on public lands (Final SEIS pages 1-5, 1-6). The project area is in a fire-adapted ponderosa pine ecosystem. Fire suppression and some management practices over the past century have contributed to changes in vegetation patterns and the hazardous conditions now present in the project area. The selected alternative responds well to national direction in reducing the potential for large-scale crown fires.

The Forest Plan, as amended, contains many goals and objectives that cannot be met in areas affected by large-scale crown fires. It is clear that Forest Plan goals and objectives related to soil, air, watershed, wildlife habitat, scenic resources, and recreational opportunities can be negatively affected by large crown fires.

Selected Alternative Response to Issues – Three key issues were developed based on internal and external scoping. Table 3 (page 16) provides a comparative display of the alternative effects and/or outputs relative to the key issues. The selected alternative responds well to each of these issues. The selected alternative best meets the need to thin trees, remove biomass, and reduce the potential for intense, large-scale wildfire. It will lower crown fire hazard by 60 percent, more than Alternative B (18 percent) and Alternative D (57 percent), and this effect will last at least 30 years (Final SEIS p. 3-53). It will reduce fuels over a larger area as compared to the other alternatives. The overall effect will be a landscape less susceptible to wildfires and insect infestation. The selected alternative includes the use of prescribed fire, which results in longer-term benefits than mechanical treatment alone (Final SEIS p. 3-42). It includes primarily moderate-complexity burns, avoiding the high-complexity areas where fires may have a higher risk of escape. The selected alternative will reduce open road mileage, benefiting wildlife and some recreation users, but will provide adequate motorized access for fire suppression purposes. It will also

provide the most open-canopy habitat; this will increase the diversity and productivity of understory vegetation, to the benefit of deer and elk. The selected alternative will maintain or expand aspen, oak, meadow, and riparian communities, all of which are important elements of forest diversity supporting a variety of wildlife species.

Public Response to Draft Supplemental EIS – The majority of local residents, area users, and local governments want to see an aggressive approach to reducing fuels and associated wildfire hazards. Concerns include protecting human life and property, conserving the natural environment, and maintaining the economic well-being of the area. These concerns were made clear during the public scoping process and in comments received on the Draft SEIS. These comments were an important consideration in my decision to select Alternative C.

I also considered comments opposing the fire hazard reduction and other vegetation management proposals of Alternative C. These respondents favored either no action (Alternative A) or the primarily non-commercial approach proposed in Alternative B. Major concerns expressed by these respondents are discussed below.

1. Past timber harvest has not stopped wildfires from burning through managed areas on the Black Hills National Forest, so there is no reason to expect the results from this proposal would be any different.

In response to this concern, it should be noted that past forest management activities on the Black Hills have generally not focused on reducing the potential for high-intensity crown fires. The selected alternative is different from these past practices in a number of ways.

- The selected alternative is designed to thin trees in strategic locations across the landscape. This will reduce the likelihood that a wildfire will encounter large, contiguous areas of high fuel loading and hazardous fuel conditions that could allow rapid fire growth and suppression difficulties (see fuel modeling results, Final SEIS page 3-48).
- The selected alternative will thin stands to a lower density than was commonly prescribed in the past, resulting in more space between tree crowns. Once the project is completed, this will reduce the risk of rapid fire growth that can occur when tree crowns are closely spaced.
- The selected alternative will emphasize removal of smaller-diameter trees, retaining the larger, more fire-resistant trees in most treated areas. Acreage with an average tree size of very large will increase as smaller trees are cut and larger ones retained (Final SEIS pages 3-74 through 3-76).
- The selected alternative will remove biomass and clean up existing and activity fuels to a much greater degree than past timber management activities. Fire risk will temporarily increase while fuels are on the ground during vegetation management activities, but once activities are completed fire risk will decrease compared to the existing condition.
- The selected alternative will work to perpetuate habitats such as riparian areas, hardwood stands, and meadows that are naturally fire-resistant.
- Reintroduction of fire will extend the benefit of fuel-reduction activities and move towards a landscape more resilient to wildfire.

Given these differences, I believe the analysis rightly shows that the planned actions will, in fact, reduce fire hazard across the landscape to a substantially greater degree than past management actions.

2. All that is needed is to thin adjacent to communities to protect homes and other structures.

I agree with those who advocate that managing fuels within 200 feet of structures is important in protecting these structures. Although protecting homes is very important, the project's intent is also to minimize risk to firefighters and the public, and to limit effects on vegetation, wildlife, soils, water, air, and scenic resources across the project area so that it can continue to contribute to Forest Plan goals and objectives. The selected alternative will address fire hazard on a landscape basis, increasing structural diversity and patchiness so that the area as a whole is more resilient to disturbances. The selected alternative will reintroduce fire both to reduce hazardous fuels and to take advantage of fire's ecosystem health benefits. Additionally, from a resident's perspective, saving the house when the forest vegetation surrounding it has burned down still results in significant economic, emotional, and aesthetic effects.

As a final point, I want to be clear that the selected alternative is not designed to prevent all wildfires. Wildfires will burn in the Black Hills regardless of actions taken by the Forest Service. I believe, however, that the analysis strongly indicates that the selected alternative will substantially reduce the risk of intense, large-scale wildfires in the project area.

3. Planned actions could have substantial negative effects on soil and water.

Some respondents expressed concern that timber harvest and road work proposed under the Dean Project could violate the Clean Water Act and Forest Plan standards for protection of soil and water. Protection of basic resources, including soil and water, is a key part of the mission of the Forest Service. I believe the Dean Project analysis shows that the selected alternative will comply with all soil and water protection requirements, will contribute to improved conditions in the project area, and will not add substantially to cumulative effects. Best Management Practices, which have been shown to be effective in protecting these resources, will be applied (Final SEIS page 2-14). Field investigation indicated that Forest Plan standards are currently being met in the project area, and the analysis shows that planned activities will comply with these standards and improve conditions where disturbed areas would be disconnected from channels (Final SEIS page 3-20). Monitoring conducted in the Dean Project Area and elsewhere on the Forest indicates that similar past actions have not caused substantial detrimental effects on soil and water resources (Final SEIS page 3-15).

The Environmental Protection Agency (EPA) expressed concern that the Dean Project could negatively affect water quality and aquatic habitats. The selected alternative will decrease road density by closing roads (Final SEIS page 2-22) and will rehabilitate several locations where roads are contributing sediment to streams (Final SEIS page 2-8). These activities may cause short-term increases in sedimentation but will ultimately stabilize soil and reduce sediment transport (Final SEIS page 3-20). All planned activities will be implemented using the state of Wyoming's Best Management Practices, which have been shown to be effective in reducing adverse effects on water quality (Final SEIS page 3-24).

4. The proposed action and alternatives did not consider enough options.

Some respondents stated that the analysis should have considered a wider range of management options. I am satisfied that the range of alternatives presented in the Final SEIS (Chapter 2), including those not analyzed in detail, is reasonable, fully addresses the reasons for action in this area, and responds to public issues. The proposed action and alternatives analyzed in detail represent a variety of feasible options that could be implemented to reduce fire hazard and otherwise meet Forest Plan objectives in the project area. Alternative actions suggested by

members of the public and state agencies were considered and in some cases incorporated into an alternative analyzed in detail. Reasons for dismissing other alternatives from detailed study are discussed in the Final SEIS (starting on page 2-18). Other suggestions were dismissed due to lack of feasibility, response to Forest Plan goals and objectives, or relevance to the project purpose and need. I believe the alternatives described in the Final SEIS represent an adequate range of possible actions and respond to public concerns.

Mountain Pine Beetle Infestation Risk

Purpose and Need – The purpose and need for this project includes the need to reduce risk of mountain pine beetle infestation. Mountain pine beetle infestation has reached epidemic levels in other parts of the Black Hills National Forest, including an area close to the Dean Project Area (Final SEIS page 1-13). The selected alternative responds to the purpose and need by reducing infestation risk in many susceptible stands. By thinning stands to a lower density than the traditional standard, the selected alternative will maintain a reduced infestation risk for a longer period of time.

Management Direction – The Forest Plan, as amended, contains many goals and objectives that cannot be met in areas with mountain pine beetle epidemics. It is clear that widespread beetle infestation and tree mortality can negatively affect achievement of Forest Plan goals and objectives related to soil, air, watershed, wildlife habitat, scenic resources, and recreational opportunities. Conversely, beetle infestation can create conditions that contribute to achievement of objectives for wildlife species such as black-backed woodpecker.

Selected Alternative Response to Issues – Issues and associated measurement indicators for mountain pine beetle include infestation risk level and pine stand structural diversity. The selected alternative will result in more pine stands at low risk of infestation and fewer stands at high risk than any other alternative. This effect will last for at least the next 20 years (Final SEIS page 3-31). While mountain pine beetles will continue to be present, the selected alternative would substantially reduce the risk that populations would build up to epidemic levels. The overall effect will be a landscape less susceptible to beetle infestation and the resulting fuel loading that could contribute to severe wildfires.

Public Response to Draft Supplemental EIS – Comments on the Draft SEIS generally expressed support for actions that would reduce risk of beetle infestation. Respondents linked beetle infestation to economic loss and increased fire hazard. These were important factors in my decision. I also considered comments stating that periodic beetle infestation is a natural disturbance process that should be allowed to run its course. Species such as black-backed woodpecker are associated both with beetle infestation and burned forest. I agree that beetles are part of the Black Hills pine ecosystem and that we should not, and cannot, eliminate them. In the last several years, beetles have infested thousands of acres in the Black Hills. While we cannot prevent some level of infestation, the Forest Plan is clear that we must reduce the risk of infestation where outbreaks would conflict with management objectives. Management objectives in the Dean Project Area include providing diverse structural stages, commercial timber, and habitat for big game and a variety of other wildlife species. Widespread beetle infestation could change forest characteristics so that achievement of these objectives would be difficult or impossible for an extended period of time. The Phase 2 Amendment to the Forest Plan contains objectives to ensure the National Forest continues to provide habitat for species associated with beetle infestation and burned trees. I believe the analysis in the Final SEIS demonstrates that the selected alternative will reduce the risk of beetle infestation while improving ecosystem health through increased structural diversity and reintroduction of fire.

Effects on Wildlife Habitat

Purpose and Need – The purpose and need for this project includes improving wildlife habitat. The Project Area includes big game winter range, fawning and calving areas, and habitat for a variety of non-game wildlife. The selected alternative would improve habitat by diversifying forest structure, enhancing non-pine vegetation communities, and restricting motorized travel.

Management Direction – The Forest Plan, as amended, contains many goals and objectives related to wildlife. There are objectives for habitat components such as snags, riparian areas, and structural diversity. There are also objectives to conserve or enhance habitat for sensitive and other species. Management areas 5.4 and 5.6 both emphasize providing big game habitat.

Selected Alternative Response to Issues – The lower elevations of the Project Area serve as big game winter range while upper elevations are important fawning and calving habitat. The selected alternative will change management area designation to accurately reflect this pattern of use. The selected alternative will reduce open road density and prohibit off-road motorized travel in winter range. Enhancement actions will take place in aspen and riparian habitats. Structural diversity will increase through creation of additional open areas and young forest, treatment of mature stands to move towards late-succession conditions, and retention of larger trees in most treated areas. Average tree size will increase in most treated stands due to removal of smaller stems (Final SEIS pages 3-74 through 3-76). Reducing density and competition in these stands will increase growth in the large overstory trees, increasing availability of large trees and options for development of late-succession habitat.

Public Response to Draft Supplemental EIS – The Wyoming Game and Fish Department (WGF) expressed concern that changing MA designation from 5.4 (big game winter range emphasis) to 5.6 (forest products, recreation and big game emphasis) would result in habitat degradation and detrimental effects on big game species, and that proposed management actions would not result in enough early- or late-succession forest. The district ranger and WGF personnel met twice to discuss these concerns and seek solutions. In response to WGF concerns, I have decided to change the treatment prescription in a number of stands to work towards late-succession conditions (see page 2). I have decided to implement the management area change because big game use in winter is minimal in the part of the project area that will change to MA 5.6, and MA designation should accurately reflect ground conditions. The change will have little effect on big game habitat conditions. Management direction is similar in MAs 5.4 and 5.6, differing mainly in travel management. After implementation of the selected alternative, the entire project area, regardless of MA, would meet the more restrictive MA 5.4 road density direction. Currently the project area is open to off-road motorized travel, with the exception of the Rednose walk-in hunting area. Because the selected alternative includes a planned area closure (year-round in MA 5.4 and from May through July in MA 5.6), it will provide more protection during critical periods than now exists. In particular, closure of areas actually used as winter range to off-road motorized vehicles will reduce disturbance of wintering big game, and closure of the entire area during calving/fawning season will increase security while young animals are vulnerable. I am confident that the MA change will more accurately reflect big game use of the area and will increase protection of big game habitat.

Some respondents raised concerns about the project's potential effects on various wildlife species, particularly those associated with snags or mature, dense pine forest. These respondents expressed a belief that the Phase 2 Amendment provides inadequate protection for the habitats in question, and that the Dean Project could lead to loss of viability for entire populations of these species. I have reviewed the Dean Project analysis and the assessments and data on which it is based, and I am satisfied that the selected alternative is consistent with the Forest Plan and does not threaten populations of any species. Planned actions and effects are within the range of those described in the Phase 2 Amendment FEIS. The project was designed with protective measures in mind for species such as land snails (Final SEIS page 2-

10), will leave almost all existing snags intact (Final SEIS page 3-77), and will provide a variety of habitat types and forest structures across the project area (Final SEIS pages 3-71, 3-72).

EPA expressed concern that the Dean Project could adversely affect wildlife species. The analysis shows that the selected alternative may adversely affect some individuals of various species, but that there will be no adverse effects on populations of any wildlife species (Final SEIS pages 3-80 through 3-124). The Project Area will continue to provide a variety of wildlife habitat. The selected alternative will enhance non-pine habitats such as riparian areas and promote development of large trees through removal of smaller stems. In addition, I have modified the selected alternative to include mature stand enhancement treatments that will provide additional habitat diversity in the form of large trees. These treatments will move these stands toward late succession, improving conditions for species associated with this habitat.

Travel and Recreation Use

Purpose and Need – As stated in the Final SEIS, there is a need to ensure access for fire suppression, better manage motorized access and motorized off-road use, maintain the road system, and reduce existing soil and water damage. While the majority of motorized users try to limit their effects on the landscape and to other users, some are careless or destructive. There is a growing desire among non-motorized users for areas where motorized use is restricted to provide walk-in hunting opportunities, quiet areas away from the noise of engines, and trails unaffected by motorized vehicles.

The selected alternative responds well to the purpose and need. It will maintain adequate access for fire suppression and forest management. It will provide additional opportunities for non-motorized recreation free from the sound and effects of motorized use and limit harassment of big game and other wildlife by motorized vehicles. It will provide opportunities for both motorized and non-motorized users within the project area. It eliminates some user-created roads and the associated effects on soil, water, vegetation, and wildlife resources. Travel management under the selected alternative is based on well-defined boundaries such as roads and drainages that can be clearly identified and signed on the ground. The area to be re-designated as MA 5.6 will be open annually to off-road, motorized travel from August 1 through April 30, providing motorized recreation opportunities. Snowmobilers will be able to continue to enjoy trails and cross-country use in much of the area.

Management Direction – The Forest Plan includes standards for travel management according to management area. Direction for MA 5.4 includes standards concerning restrictions of motorized road travel and off-road motorized use (5.4-9101 through 5.4-9103).

Selected Alternative Response to Issues – Issues and associated measurement indicators for travel and recreation management include total miles of roads open year-round, miles of roads and motorized trails, and percent of project area open to motorized, off-road use. Open road miles will decrease under the selected alternative as compared to the No Action alternative. The selected alternative will increase the area available for walk-in hunting and other non-motorized uses. It will also leave an opportunity for off-road, motorized recreation in a portion of the area most of the year. These actions are needed to better balance motorized and non-motorized use in this area. See Table 3 for a comparison of effects by alternative.

The Black Hills is among the most accessible National Forests in the country. No matter where restrictions exist, they are bound to affect someone's favorite area. I understand that some users do not want additional restrictions placed on motorized recreation, but the project record and my own observations indicate that there are resource problems and user conflicts that necessitate changes. It is true that many areas in the Black Hills and around the country in general are becoming more restrictive. This is partly in response to increased population and recreation use as well as the explosive increase in

ATV and 4x4 sales. These are reasonable concerns and I expect to see increased restrictions over time in the Black Hills. I believe the best solution to this issue is to work with groups and individuals to develop and maintain motorized and non-motorized trail systems. Use of designated trails reduces user group conflicts and resource damage. Cross-country travel may have limited impacts when the use is occasional, but repeated travel on the same route results in new user-created roads and trails. Often these user-created routes are in poor locations and cause resource damage and user conflicts. Big game and other animals can be disturbed by vehicles during vulnerable times, and Management Area direction reflects the need to minimize this disturbance. For these reasons, it is not acceptable to allow individuals to create new roads and trails on National Forest System lands wherever they desire. The Black Hills National Forest is currently in the process of working with user groups and other citizens to address travel management issues across the National Forest.

Public Response to Draft Supplemental EIS – The Wyoming Game and Fish Department (WGF) expressed concern over ATV use in big game spring, fall, and winter habitat, especially relating to the use of the Truck Trail as an ATV trail as proposed under Alternative B. Comments received from WGF played a major role in my decision to change the travel management strategy in the project area. WGF worked closely with the Forest Service during development of the Dean Project. I found their comments persuasive regarding the need to emphasize management in this area for big game and other wildlife values, as suggested by the Forest Plan. I also believe that the changes made in the selected alternative clearly move in a direction that increases opportunities for quality non-motorized recreation in this area, while still leaving an opportunity to enjoy off-road, motorized recreation in some portions of the area.

Scoping responses and comments on the Draft SEIS indicated widely divergent and strongly held views on travel management. Although many respondents supported the travel management proposals in Alternative C, others wanted to see no additional restrictions on motorized use (Alternative A). The selected alternative responds to both points of view while addressing Forest Plan direction and resource concerns. The year-round area closure will provide opportunities for non-motorized recreation while the remainder of the area continues to provide motorized recreation experiences. Closure of the entire area to off-road motorized travel during May, June, and July will limit motorized recreation during those months, but I find this a reasonable compromise because access will be available during the main use periods (big game hunting and snowmobile seasons) while calving/fawning habitat is protected.

Response of each alternative to the issues is displayed in **Table 3** (below and following page).

Table 3. Summary of Effects by Issue and Alternative

Issue/Indicators	Alt. A	Alt. B	Selected (Alt. C modified)	Alt. D
Fuel and Fire Hazard Reduction				
Crown Fire Hazard – Active	433 acres	334 acres	138 acres	181 acres
Crown Fire Hazard – Passive	3,822 acres	3,241 acres	1,610 acres	1,621 acres
Crown Fire Hazard – Conditional	161 acres	62 acres	36 acres	101 acres
Fuel Breaks – Constructed	0	0	0	3,592 acres
Prescribed Burning	0	549 acres	2,764 acres	2,764 acres
Proportion of Area Within 0.25 Mile of Private Land Treated	46%	58%	58%	70%
Travel Management and Recreation				
All Roads	102.6 miles	82.5 miles	83.8 miles	77.8 miles
Roads Open Year-Round	31.2 miles	30.1 miles	29.0 miles	30.0 miles
Percent of Project Area Open to Off-Road	81	0	51% (Aug.-Apr.)	81

Issue/Indicators	Alt. A	Alt. B	Selected (Alt. C modified)	Alt. D
Motorized Use			0% (May-Jul.)	
ATV Trails	0	6.57 miles	0	0
Wildlife Habitat				
Pine Structural Diversity				
Grass/forb Structural Stage	212 acres	299 acres	299 acres	299 acres
Seedling/sapling Structural Stage	68 acres	68 acres	965 acres	6 acres
Dense, Mature Forest	1,274 acres	660 acres	582 acres	782 acres
Late Succession Forest	382 acres	382 acres	382 acres	292 acres
Late Succession Enhancement Actions	0	1,013 acres	347 acres	0
Spatial Distribution	See Maps 5-8 in Final SEIS			
Enhancement Actions in Aspen	0	69 acres	69 acres	69 acres
Enhancement Actions in Oak	0	55 acres	55 acres	55 acres
Enhancement Actions in Riparian	0	376 acres	376 acres	376 acres
Snag Density	No snags cut	No snags cut except where necessary for safety, landings, road, skid trails, firelines		
Density of Open Roads (Miles per Square Mile), Winter	1.35	1.30	0.45	1.29
Disturbance of Security Habitats	Most open roads, no new off-road restrictions	Lower open road density, off-road motorized use restricted	Fewest open roads; off-road restrictions in sensitive habitat	No new off-road restrictions
Connected Disturbed Areas (contributing sediment to aquatic habitats)	6	5 (length of each remaining CDA would decrease)	5 (length of each remaining CDA would decrease)	4 (length of each remaining CDA would decrease)

Reasons for Not Selecting Other Alternatives

I did not select Alternative A (No Action) because it did not meet the purpose of and need for action. Alternative A would have allowed the risk of stand-replacing wildfire to increase over time, with resulting potential effects on life, property, and natural resources. It would not have met Forest Plan direction or responded to the National Fire Plan and associated policy and agreements. Alternative A did not address travel management issues, reduce the number of open road miles, or limit effects of cross-country motorized travel.

There are four primary reasons why I did not select Alternative B. First, I do not believe that Alternative B would have gone far enough in restoring the role of low-intensity fire to the landscape because it relied mainly on mechanical fuel treatments. I feel the use of low- and moderate-complexity, management-ignited fire is of utmost importance in a fire-adapted ecosystem. Second, this alternative would not have met Forest Plan direction for producing forest products on lands that are capable of producing these products. Third, the treatments proposed under Alternative B would be very costly to implement with minimal offsetting revenues. It would require the most funds to accomplish the stated objectives and there is a strong likelihood that sufficient funds would not be available. Finally, I believe closure of the entire area to off-road motorized use is not warranted at this time given existing conditions.

I did not select Alternative D for two primary reasons. It would not have reduced the potential for stand-replacing wildfire across the landscape as a whole, and it would not have adequately addressed the need for travel management changes in this area. Specifically, Alternative D did not use a broad landscape approach to vegetation treatment. The proposed treatments would have cleaned up fuels to a greater degree than past timber management practices, but did not go far enough in reducing biomass and fuel continuity across the project area because they focused on specific localities only near private land. Alternative D also proposed the same basic travel management approach that has been shown to be ineffective and is unresponsive to public demands for non-motorized recreation opportunities.

Overall, I believe that Alternatives B and D would not have done enough to reduce fire hazard across the landscape or move the forest towards conditions more resilient to disturbance. The approach of these alternatives is less comprehensive than that of Alternative C; under Alternatives B and D, further timber harvest is more likely to be necessary in the next two decades to maintain and improve the area's diversity and resistance to fire. The selected alternative will allow a longer period of time to pass before further widespread actions are needed, which will reduce the frequency of disturbances to wildlife. I am convinced that the resource and communities both will benefit from a comprehensive action to alter forest structure across the landscape. There is an opportunity to make a substantial difference in the pattern and function of forest vegetation to the long-term benefit of the Project Area, and the selected alternative responds most fully to this opportunity.

Public Involvement

Comments on the proposed action, potential concerns, and opportunities for managing the Dean Project Area were solicited from members of the public, other public agencies, tribal governments, adjacent property owners, interest groups, and Forest Service specialists. Various methods were used to request comments.

- A scoping letter was mailed on November 5, 2004, to approximately 108 interested parties, including adjacent property owners and tribal representatives. This letter included a description of the project area, an overview of the NEPA process, a general explanation of the proposed actions, and an invitation to comment.
- A Notice of Intent (NOI) to prepare an EIS was published in the *Federal Register* on November 24, 2004. The NOI asked for public comment on the proposal through December 22, 2004.
- Local newspaper articles advertised the project on November 10, 2004. These articles introduced the project to the public readership by providing a description of the project area and an explanation of the proposal as well as soliciting comments on the project.
- Other information sharing, communication, and interaction with interested parties, agencies, and individuals has occurred on a continuing basis during the project planning period.
- A Notice of Availability (NOA) of the Draft Environmental Impact Statement (DEIS) was published in the *Federal Register* on March 11, 2005. The public comment period was extended once, on April 15, 2005, and ran through May 2, 2005. Following this period, a Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) were prepared.
- On May 24, 2005, the acting Forest Supervisor signed the ROD implementing Alternative C with modifications. An administrative appeal was filed and the Regional Forester reversed the decision based on insufficient documentation of compliance with Forest Plan direction regarding soils and watershed cumulative effects.
- A Notice of Availability (NOA) of the Draft SEIS was published in the *Federal Register* on February 24, 2006. The public comment period ran through April 10, 2006. The Draft SEIS reflected changes made in response to the appeal decision. The Draft SEIS also incorporated direction found in the Phase 2 Amendment to the Forest Plan, which was not in place at the time

of the previous analysis and decision. Following this period, a Final SEIS and this ROD were prepared.

The Dean Project ID Team analyzed the public comments and provided agency responses to the comments on the Draft SEIS. These comments and associated responses are located in Appendix A of the Final SEIS. No public comments on the Draft SEIS generated the need for reanalysis or required substantive changes to the document.

Environmentally Preferred Alternative(s)

Disclosure of one or more environmentally preferable alternatives is required [Section 101 NEPA; 40 CFR 1505.2(b)]. The environmentally preferable alternative is not necessarily the alternative that will be implemented and it does not have to meet the underlying need for the project. It does, however, have to cause the least damage to the biological and physical environment and best protect, preserve, and enhance historical, cultural, and natural resources.

In the case of the Dean Project, I have determined that there could be two environmentally preferred alternatives depending on which perspective is taken. From a short-term, non-disturbance perspective, the No Action alternative (Alternative A) meets many of the criteria for being environmentally preferred. In the short term, Alternative A has the lowest risk of causing soil erosion, maintains the most snags for wildlife, provides the most habitat for sensitive species associated with dense, mature forest, and has the least risk of damaging cultural resources or potentially affecting water quality. Alternative A would, however, carry the greatest long-term risk of significant negative effects due to stand-replacing wildfires that would be more likely to occur than under other alternatives. For this reason, Alternative C (modified) is considered the overall environmentally preferred alternative. Although activities may generate short-term disturbance related to vegetation management impacts to soil, air, water, wildlife habitat, and recreation resources, it will reduce the potential for significant long-term environmental degradation.

Design Criteria and Mitigation

Design criteria and mitigation measures are implemented on a site-specific basis to reduce the adverse impacts of vegetation treatment, road work, and other planned actions. These criteria will be applied to project design, layout, and implementation, including project contracts and/or permits. Measures listed in Chapter 2 of the Final SEIS are incorporated by reference into this Record of Decision.

Monitoring

Monitoring activities described in Chapter 2 of the Final SEIS will be implemented as funding allows. Activities and their effects, including effectiveness of design criteria and mitigation, will be monitored during and following project completion. This decision makes no changes to the referenced monitoring activities.

Legal Requirements, Regulation, and Policy

Another aspect of the process of selecting an alternative is ensuring that the planned actions comply with all legal requirements and policy. The selected alternative specifically meets the following legal requirements.

Federal Laws

National Historic Preservation Act of 1966, as amended: All surveyed and inventoried cultural sites considered eligible or potentially eligible to the National Register of Historic Places will be buffered and avoided during resource management activities. Any new sites discovered during operations will be protected. Any identified Traditional Cultural Properties and sacred areas will be protected. Reference is made to consultation with the Wyoming State Historical Preservation Officer (SHPO) in the *State Laws* section, below.

National Environmental Policy Act (NEPA) of 1969: NEPA establishes the format and content requirements of environmental analysis and documentation. The Dean SEIS and ROD were completed in accordance with NEPA.

Endangered Species Act of 1973: A Biological Evaluation and Biological Assessment have been prepared to document possible effects of proposed activities on endangered, threatened, proposed, and sensitive species. A determination was made that planned activities will have “No Effect” on the bald eagle; therefore, no formal consultation with the USFWS is required. The USFWS concurred via informal consultation with this determination.

The Clean Air Act Amendments, 1977: The selected alternative will be implemented to meet the National Ambient Air Quality standards through avoidance of practices that degrade air quality below health and visibility standards.

The Clean Water Act, 1982: The selected alternative will meet and conform to the Clean Water Act as amended in 1982. This act establishes a non-degradation policy for all federally proposed projects. The selected alternative is not likely to degrade water quality below standards set by the State of Wyoming. This will be accomplished through planning, application, and monitoring of Best Management Practices, other design criteria, and mitigation measures.

The National Forest Management Act (NFMA) of 1976, which amended the Forest and Rangeland Renewable Resources Act (RPA) of 1974: All alternatives were developed to be in full compliance and consistent with NFMA as summarized below.

Consistency with the Land and Resource Management Plan

NFMA (16 U.S.C. 1604(i)) and the regulations of January 2005 at 36 CFR 219.8(b) and (e) require me to ensure that permits, contracts, cooperative agreements, and other activities carried out on the Black Hills National Forest are consistent with the Forest Plan, as amended. My decision is consistent with this direction in that:

- Planned activities will contribute to Forest Plan goals and objectives (Final SEIS Section 1.3.1). They will not detract from or jeopardize any goal or objective.
- I have reviewed the Black Hills National Forest Fiscal Year 2004 Monitoring and Evaluation Report and Region 2 Management Indicator Species (MIS) guidance. The effects of planned activities on MIS are consistent with the Forest Plan and with regulations at 36 CFR 219.14f, issued and effective January 5, 2005 (70 FR 1023).
- Planned activities are consistent with management area direction, with the incorporation of Amendment #5.
- Planned activities comply or move towards compliance with Forest Plan standards and guidelines (Final SEIS Section 2.2), with the incorporation of Amendment #5.

Consistency with the National Forest Management Act

The 1982 planning rule has been superseded and is no longer in effect. There is a transition provision under the 2005 Rule which allows use of the provisions of the former (1982) rule. 36 CFR 219.14. However, the transition provision applies only to Forest Plan amendments or revisions and does not apply to authorization of projects implementing a Forest Plan. 36 CFR 219.2(c) (indicating that no provisions of the Rule apply to projects unless otherwise noted). Thus, the NFMA requirement for approving a project decision is simply to determine that the project will be consistent with the Forest Plan. 16 U.S.C. 1604(i); 36 CFR 219.8(e) (2005). The scope of analysis for a Forest Plan's management indicator species is determined by the Forest Plan's management direction, specifically, its standards and guidelines (Chapter II) and monitoring direction (Chapter IV). The Forest Plan contains no obligation to conduct monitoring or surveying within a proposed project area. The Forest Plan establishes monitoring and evaluation requirements that do not require population monitoring for MIS, but rather employ habitat capability relationships. The 2005 Rule provides that, unless the Forest Plan specifically requires population monitoring, any MIS monitoring requirements in existing Forest Plans may be satisfied by considering data and analysis relating to habitat. 36 CFR 219.14(f). The project is consistent with the requirements of the Revised Forest Plan for the Black Hills National Forest, as amended, and need not meet any additional requirements of the 1982 Rule.

State Laws

Wyoming State Best Management Practices (BMPs): Site-specific BMPs will be applied to protect beneficial uses (Final SEIS page 2-5).

Consultation with the Wyoming State Historic Preservation Officer (SHPO): The SHPO has been consulted concerning the proposed activities in the Dean Project Area. The SHPO concurred with the determination of "No Historic Properties Affected" in a letter dated March 23, 2005 (#110RLC026). The Wyoming SHPO, the Advisory Council on Historic Preservation (ACHP), and Tribal Historic Preservation Offices would be consulted about measures to protect significant archeological sites from adverse affects, should any previously unidentified resources be discovered.

Other Policy or Guiding Documentation

Forest Plan Direction

The 1997 Black Hills National Forest Land and Resource Management Plan (Forest Plan), supported by its FEIS, is the Forest programmatic document required by the rules implementing the Forest and Rangeland Renewable Resources Act of 1974 as amended by the National Forest Management Act of 1976. The Forest Plan was amended by the Phase 2 Amendment (Record of Decision dated Oct. 31, 2005). This amendment provides revised and new direction.

Timber Sale Contracts

Portions of one commercial timber sale, Truck Trail, are currently active within the Dean Project Area. The Truck Trail Fuel Break project is currently under way on the southwestern boundary of the project area and will affect approximately 485 acres along the Truck Trail, with approximately half this acreage inside the Dean Project Area. Post-sale activities related to the Puma and Rednose timber sales are currently active. These projects were implemented under the authority of previous NEPA decisions. It is important

to recognize the legal obligations and limitations of the Forest Service under these contracts administered under the authority of the Forest Timber Contracting Officer.

Forest Plan Amendment

There is a need to amend the Forest Plan regarding certain site-specific conditions. I have determined that one amendment to the Forest Plan is needed and appropriate as part of my decision to implement the selected alternative. The amendment is described in the *Decision* section of this document under the heading *Forest Plan Amendment*. This amendment applies only to the Dean Project Area. This amendment is Amendment #5 to the Forest Plan.

I have determined that Forest Plan Amendment #5 is not significant in terms of the National Forest Management Act (16 U.S.C. 1604(f)(4)) and its associated implementing regulations at 36 CFR 219.6(a)(2) and 219.8(e). I have determined that the action allowed by this amendment will affect specific locations in the Dean Project Area and that the area involved is less than 0.6 percent of the total area of the Black Hills National Forest. Further, I have determined that the amendment will have no effect on the long-term relationship of goods and services projected by the Forest Plan; that this change is only for a specific situation; and that this amendment does not substantially change desired land conditions. Public disclosure of the need for and description of the components of the amendment was made during the Draft SEIS comment period. Documentation of the NFMA significance review of amendment components is contained in the project file.

Implementation

Implementation of the selected alternative will occur under the authority of this Record of Decision, subject to the appropriate appeal and implementation procedures cited below. Acreages and locations are approximate and may vary slightly during implementation depending on site-specific conditions.

Pursuant to regulations at 36 CFR 215.9(a), when no appeal is filed within the 45-day time period, implementation of the decision may begin on, but not before, the 5th business day following the close of the appeal-filing period. When an appeal is filed, implementation may occur on, but not before, the 15th business day following the date of appeal disposition (36 CFR 215.9(b)).

Administrative Review or Appeal Opportunities

This decision is subject to appeal pursuant to 36 CFR Part 215 (June 2003). A written appeal must be submitted within 45 days following the publication date of the legal notice of this decision in the Rapid City Journal, Rapid City, South Dakota. It is the responsibility of the appellant to ensure their appeal is received in a timely manner. The publication date of the legal notice of the decision in the newspaper of record is the *exclusive* means for calculating the time to file an appeal. Appellants should not rely on date or timeframe information provided by any other source.

Paper appeals must be submitted to:

USDA, Forest Service, Region 2
Attn: Appeal Deciding Officer
PO Box 25127
Lakewood, Colorado 80225

Electronic appeals must be submitted to: appeals-rocky-mountain-regional-office@fs.fed.us

In electronic appeals, the subject line should contain the name of the project being appealed. Electronic appeals must be submitted and readable in MS Word, Rich Text or PDF format. When an appeal is electronically mailed, the appellant should normally receive an automated electronic acknowledgement confirming agency receipt. If the appellant does not receive an automated acknowledgement of the receipt of the appeal, it is the appellant's responsibility to ensure timely receipt by other means (36 CFR 215.15(c)(3)).

It is the appellant's responsibility to provide sufficient project- or activity-specific evidence and rationale, focusing on the decision, to show why my decision should be reversed. The appeal must be filed with the Appeal Deciding Officer in writing. At a minimum, the appeal must meet the content requirements of 36 CFR 215.14, and include the following information:

- The appellant's name and address, with a telephone number, if available;
- A signature, or other verification of authorship upon request (a scanned signature for electronic mail may be filed with the appeal);
- When multiple names are listed on an appeal, identification of the lead appellant and verification of the identity of the lead appellant upon request;
- The name of the project or activity for which the decision was made, the name and title of the Responsible Official, and the date of the decision;
- The regulation under which the appeal is being filed, when there is an option to appeal under either 36 CFR 215 or 36 CFR 251, subpart C;
- Any specific change(s) in the decision that the appellant seeks and rationale for those changes;
- Any portion(s) of the decision with which the appellant disagrees, and explanation for the disagreement;
- Why the appellant believes the Responsible Official's decision failed to consider substantive comments; and
- How the appellant believes the decision specifically violates law, regulation, or policy.

Contact Person

For additional information concerning this decision or the Forest Service appeal process, contact Steve Kozel, District Ranger, Bearlodge Ranger District, P.O. Box 680, Sundance, WY 82729 (307-283-1361) or Ed Fischer, Environmental Coordinator, Black Hills National Forest, 1019 North 5th Street, Custer, SD 57730 (605-673-9200).



CRAIG BOBZIEN
Forest Supervisor
Black Hills National Forest
USDA Forest Service

5-3-06

Date

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