TABLE 5: Proposed Action -- Estimated Annual Reduction of Miles of Reconstruction and Construction in Roadless and Unroaded Areas From the No Action Alternative and the Proposed Action

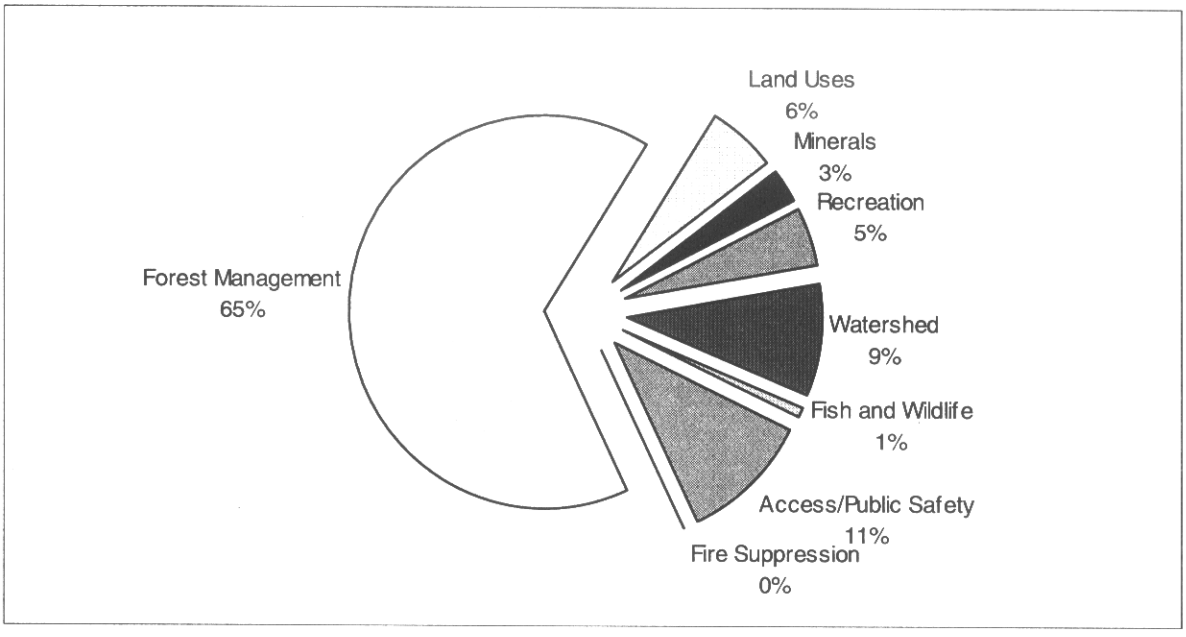
	Total	Access/ Public Safety	Fire Suppression	Forest Management	Land Uses	Minerals	Recreation	Watershed	Fish and Wildlife
Reconstructed									
Classified	[61]	[4]	[0]	[32]	[1]	[2]	[3]	[7]	[11]
Constructed									
Classified	[142]	[1]	[0]	[126]	[2]	[3]	[11]	[0]	[1]
Temporary	[103]	[0]	[4]	[95]	[0]	[4]	[1]	[1]	[0]
Subtotal – constructed	*[246]*	*[1]*	*[4]*	*[221]*	*[2]*	*[7]*	*[12]*	*[0]*	*[1]*
Total	[307]	[5]	[4]	[253]	[3]	[9]	[15]	[7]	[12]

[a] The Forest Service does not reconstruct or construct unclassified roads. Temporary roads are constructed to facilitate particular short-term activities and later closed. Not all roads are constructed by the Forest Service.

To convert miles to kilometers, multiply by 1.609.

Source: Data derived for the *Environmental Assessment for the Interim Rule Suspending Road Construction in Unroaded Areas of National Forest System Land*, March 1999 (Alternative 4, annualized) and other data provided by the regions.

FIGURE 2: Proposed Road Construction and Reconstruction on National Forest System Lands by Natural Resource Purpose



Alternatives Considered but not Analyzed in Detail

In the development of the range of alternatives, the Forest Service considered the 53,000 responses and comments from 2,300 people at public meetings. In general, these comments focused on the management and use of roadless areas rather than on the proposed road management strategy or road analysis process. The Forest Service also considered the issues and related information associated with the transportation policy change and the proposed changes to the 36 CFR 219 Planning Regulations and the proposed Roadless Area Protection Rule. Many of the responses related to those policy changes are being addressed in environmental analysis associated with those procedures, thus narrowing the scope of this proposal and analysis. All of the issues raised during scoping for this road management strategy are addressed within the proposed action and no action alternative, or were outside the scope of this proposed action; no other reasonable alternatives were identified that could meet the purpose and need. Thus, no other alternatives were considered in detail.

The Forest Service considered but did not analyze the following policy alternatives in detail.

Continued or permanent suspension of road construction in inventoried roadless and other unroaded areas. The Forest Service believes that continuing or permanently suspending road construction in roadless and other unroaded areas is beyond the scope of the road management strategy and is better analyzed in the context of the recently proposed Roadless Area Protection Rule and the EIS being prepared for that rule (64 Fed. Reg. 56306 (1999)).

Implementation of a road management policy with exemptions. The proposed road management strategy is a broad plan or course of action designed to influence and determine decisions and actions for application nationwide. Exemptions at the national policy level are not needed because decisions to construct, reconstruct, or decommission roads would be based on site-specific conditions. No individual actions would be precluded nationally. Since no National Forest has completed an adequate science-based road analysis, forest-wide exemptions are not appropriate.

Access management. This alternative would affect access to all National Forest System lands, including off-highway vehicle areas and various types of equipment and vehicles, *e.g.*, off-highway vehicles, snowmobiles, bicycles, *etc.* The proposed road management strategy deals with roads, but not all forms of access. For this reason, the larger issue of access management was determined to be outside the scope of this EA.

Environmental Consequences

Assumptions

This is a programmatic EA designed to look at the overall impacts of the Forest Service's proposed policy changes. The EA identifies a range of potential impacts of the proposed action on a nationwide scale, but it does not attempt to analyze specific impacts on particular forests. It will not be used as a decision document to support specific changes at the forest level; however, it is intended to support a policy change.

Using past trends and current planning as a baseline, the EA quantitatively characterizes the anticipated range of miles of roads or some areas that could be affected by the proposed policy and the no action alternative, and qualitatively identifies the kinds of impacts that could occur. For purposes of analysis of the no action alternative, the Forest Service assumes that regional information gathered for the 18-month suspension period in the *Interim Rule EA* is representative the national trends for road reconstruction and construction activities in the future.

Decommissioning

Unneeded classified and unclassified roads would be decommissioned under both the no action alternative and the proposed action. Roads are unneeded when the resource management objectives of a Forest Service unit have changed and the roads within the unit do not support the new objectives. Roads (classified and unclassified) that were found to be causing excessive damage to soil, water, and wildlife would also be decommissioned. Roads needed to protect and administer NFS lands, provide for safe and efficient travel, and minimize environmental impacts would not be decommissioned.

In general, the Forest Service assumes that more roads would be decommissioned under the proposed action than under the no action alternative, subject to congressional funding levels. Further, under the proposed action, roads that pose the greatest risk of causing environmental damage would be given decommissioning priority. The Forest Service assumes that primarily unclassified roads would be decommissioned under the proposed action.

In 1998, 1,467 miles of classified roads and 634 miles of unclassified roads were decommissioned (*see* Table 2).

Reconstruction

Road reconstruction would occur under both the no action alternative and the proposed action. Reconstruction involves the realignment, improvement, or restoration of classified roads to maintain and enhance safety, service, and environmental standards. Unclassified roads are not reconstructed; however, in some situations, unclassified roads maybe redesignated as classified and then reconstructed to meet management and resource objectives.

In general, because the proposed action would emphasize road reconstruction, the Forest Service assumes that more roads would be reconstructed under the proposed action than under the no action alternative (although fewer miles of roads would be reconstructed in inventoried roadless and other unroaded areas under the proposed action than under the no action alternative). Only classified roads would be reconstructed. During the transition period before forest plans were revised, road reconstruction in inventoried roadless and other unroaded areas would be conducted only for compelling reasons such as critical resource restoration and protection, public safety, and access provided by statute, treaty, or pursuant to reserved or outstanding rights.

The Forest Service anticipates that approximately 4,140 miles of classified roads would be reconstructed annually under the current program (*see* Table 3).

Construction

Road construction involves clearing and excavating land, constructing bridges, and constructing culverts for drainage. Native soils and rocks are used. Classified roads are surfaced with soil and gravel or may occasionally be paved with asphalt; temporary roads are seldom paved.

Under the no action alternative, new roads would be constructed as needed to meet forest objectives. Under the proposed action, however, new roads would be constructed only after completion of a science-based roads analysis that considered environmental and transportation needs and effects. Until forest plans were revised to incorporate a roads analysis, new roads would be constructed in inventoried roadless areas and other unroaded areas only for compelling reasons such as critical resource restoration and protection, public safety, and access provided by statute, treaty, or pursuant to reserved or outstanding rights. For these reasons, the Forest Service anticipates that fewer new roads would be constructed under the proposed action than under the no action alternative.

The Forest Service expects that approximately 626 miles of classified roads and 1,201 miles of temporary roads would be constructed annually under the current program (*see* Table 3).

National Forest System Lands

National Forest System lands comprise 192 million acres. Of these, approximately 35 million acres are congressionally designated wilderness areas. Road construction within these areas is not permitted under either the current program or the proposed new road management policy.

Approximately 50 million acres of NFS lands are roadless areas inventoried in the Roadless Area Review and Evaluation (RARE II) conducted in the mid-1970s or identified in existing land and resource management plans (forest plans). Although designated as "roadless," some of these areas do contain classified and/or unclassified roads. Further, on these 50 million acres, road construction is prohibited on approximately 23 million acres; road construction is permitted on approximately 27 million acres. Approximately 8 million acres within the 50 million acres of inventoried roadless areas have been identified as being suitable for timber harvesting.

Roadless areas: Undeveloped areas typically exceeding 5,000 acres that meet the minimum criteria for wilderness consideration under the Wilderness Act and the planning regulations at 36 CFR 219.17 that were inventoried during the Forest Service's formal Roadless Area Review and Evaluation (RARE II) process, and that remain roadless through forest planning decisions. Designated roadless areas do not overlap with unroaded areas.

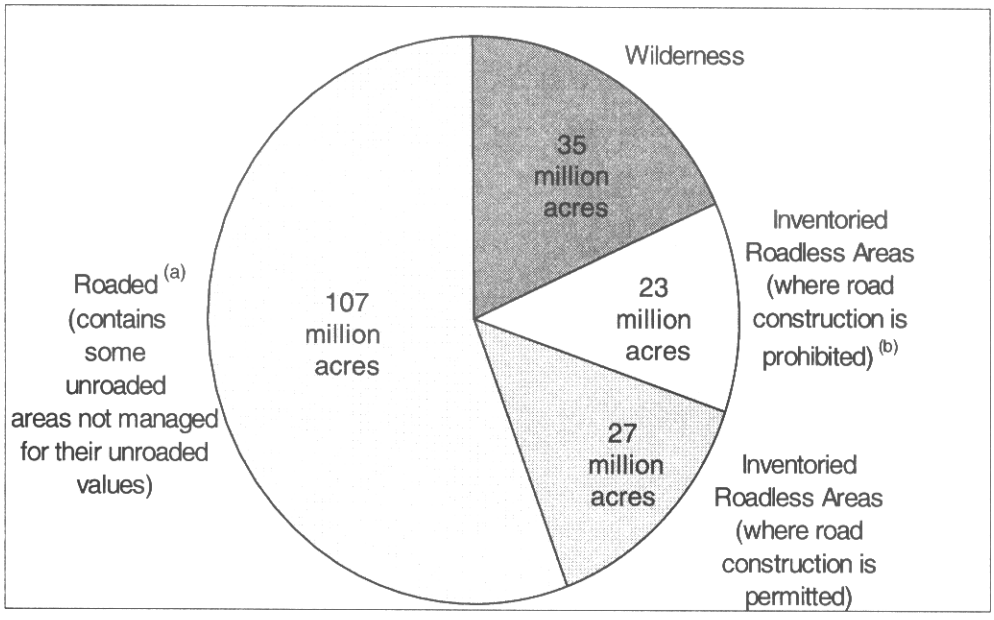
Unroaded areas: Any area without a classified road that is at least 50 inches wide and was constructed or is maintained for vehicle use. The size of the area must be sufficient enough and in a manageable configuration to protect the inherent values associated with the unroaded condition. Unroaded areas do not overlap with designated roadless areas.

The remaining 107 million acres are roaded (developed) areas and other unroaded areas. For the purposes of this proposed rule, unroaded areas are defined as 1,000 acres or more that are contiguous to: (1) remaining unroaded portions of RARE II inventoried roadless areas, (2) roadless areas inventoried in land and resource management plans, (3) congressionally designated wilderness areas or Federally-administered components of National Wild and Scenic River System classified as Wild, or (4) unroaded areas of 5,000 acres or more on other Federal lands.[4] These areas of 1,000 acres or more have a common boundary of considerable length, a width of at least one-quarter mile, and provide important corridors for wildlife movement or extend a unique ecological value of the established inventoried area.

Figure 3 depicts how National Forest lands are allocated.

[4] This is the same definition as was used in the interim suspension rule, and is used in this policy for the transition period. Long-term criteria for unroaded areas are being established under the Proposed Roadless Area Protection Rule.

FIGURE 3: National Forest Service Land Allocations



[a] Contains some unroaded areas which are not managed for their unroaded values. These areas are being addressed as Part 2 of the proposed Roadless Area Protection Rule (64 Fed. Reg. 56306 (1999).

[b] Inventoried roadless areas are being addressed under the proposed Roadless Area Protection Rule and the total acres affected will be identified under that process and in the EIS.

As noted above, no roads would be constructed in wilderness areas. This EA focuses on road decommissioning, reconstruction, and construction of roads in inventoried roadless areas and other roaded and unroaded areas.

Scope of Impact Analyses

The following discussion addresses the potential impacts of decommissioning, reconstruction, and new road construction under the no action alternative and the proposed action. The impacts would occur in roaded areas into the future, while the impacts to inventoried roadless and other unroaded areas would occur only until the Roadless Area Protection Rule is issued or forest plans are revised. This EA examines the potential impacts on several different aspects of forest use: access and public safety; fire, insects, and disease; forest management (timber); land uses (non-recreational); law enforcement; minerals; noxious weeds and nonnative invasive species; recreation, heritage, and wilderness resources; watershed and air; wildlife, fish, and threatened, endangered, and sensitive species; and economic and social effects.

Access and Public Safety

Access refers to the opportunity to enter NFS lands for personal use and reasonable use of other lands and rights within NFS lands. Public safety refers to activities undertaken by the Forest Service for the protection of life and property within the National Forest System. Approximately 380,000 miles of Forest Service roads serve passenger vehicle use (22 percent), are maintained for high-clearance (4-wheel drive) vehicle use (55 percent), or are closed to highway vehicle use by the public (23 percent).

An estimated 1.7 million vehicles associated with recreational activities use the National Forest Transportation System each day in the summer. Approximately 15,000 commercial vehicles associated with Forest Service timber harvesting and the development of other resources use the system daily. In addition, an estimated 9,000 Forest Service administrative vehicles travel Forest Service roads each day for special use administration, habitat improvement projects, maintenance and operation of recreation facilities, law enforcement, and fire suppression.

No Action Alternative

In 1998, the Forest Service decommissioned 2,101 miles of roads (*see* Table 2). This level of road decommissioning is likely to continue or increase under the no action alternative. Although motorized vehicle access is reduced when roads are decommissioned, roads needed for access to pre-existing rights or for public safety would not be decommissioned under the no action alternative.

In addition, the Forest Service estimates that 614 miles of classified and temporary roads would be constructed or reconstructed annually for the purpose of maintaining access to NFS lands and rights within NFS lands and public safety (*see* Table 3). Of those, an insignificant number

would be located in inventoried roadless or other unroaded areas. Road reconstruction would improve existing roads used for all purposes, including access and public safety.

Proposed Action

The impacts of the proposed action would be similar to those for the no action alternative. Additional road decommissioning could further reduce motorized vehicle access, but roads needed for access to pre-existing rights or for public safety would not be decommissioned under the proposed action.

Overall, the Forest Service expects that an insignificant number of miles of roads would be reconstructed or constructed in inventoried roadless or other unroaded areas under the proposed action as compared to the no action alternative (*see* Table 5), although overall the Forest Service anticipates that more roads would be reconstructed under the proposed action than under the no action alternative. Road reconstruction would improve existing roads. Roads needed for access to pre-existing rights or for public safety would also be constructed under the proposed action.

Fire, Insects, and Disease

This activity involves forest health projects such as thinning, salvage, or regeneration to restore forests affected by fire, fire suppression, and disease and insect control. Approximately 40 million acres of all NFS lands (almost 20 percent) are at abnormally high risk for catastrophic fire, disease, or insect outbreaks. The Forest Service plans to treat approximately 514,000 acres in 1998 and 1999. There is a greater need for treatment than can be accomplished across NFS lands each year due to funding constraints.

Roads provide access for fire suppression forces and equipment as well as increased potential for human-caused fires. Road development often increases the risk of human-caused fires by increasing exposure of fuels to human activities. Although human-caused fires occur frequently in areas served by roads, these fires are sometimes more easily suppressed because of road access.

Prescribed burns (fires ignited by management actions to meet specific objectives) rarely involve road construction or reconstruction. Use of natural features and short-term fire break construction is often more effective and less costly than alternatives requiring roads. In 1998, 1.2 million acres of hazardous fuels were treated, and this effort is estimated to increase to an average of 3 million acres per year on a continuous, rotational basis. All of these acres can be treated without the construction or reconstruction of roads.

At the local level, the short-term risk of insect epidemics is highest in the South (Region 8), where southern pine beetle populations are building to epidemic levels across the Coastal Plain

and Piedmont. The risk of catastrophic fire is highest in the Intermountain West and California (Regions 4 and 5). Conifer forests of Idaho, Colorado, eastern Oregon, and the Sierra Nevadas often juxtapose severe fire risk with residential development in wildlands (referred to as the wildland/urban interface).

No Action Alternative

Under the no action alternative, the Forest Service would decommission an estimated 2,101 miles of classified and unclassified roads each year (*see* Table 2). Only roads that were not needed for forest resource management objectives would be decommissioned. Thus, roads decommissioned under the no action alternative would not affect forest health projects.

Decommissioning unneeded roads could reduce the frequency of human-caused fires in the areas served by the roads. However, roads can facilitate fire suppression when fires do occur and alternative firefighting strategies that do not require motorized access (such as the use of aerially delivered firefighters) may not be as effective. Overall, road decommissioning is not expected to affect the Forest Service's ability to suppress fires.

In addition, the Forest Service would construct an estimated 13 miles of temporary roads annually for fire suppression purposes, including approximately 4 miles of roads in inventoried roadless or other unroaded areas (*see* Table 3).

Proposed Action

The impacts of the proposed action would be similar to those associated with the no action alternative. Although more roads would be decommissioned under the proposed action than under the no action alternative, only roads that were not needed for forest resource management objectives would be decommissioned, and roads decommissioned under the proposed action would not be expected to affect forest health projects.

Decommissioning a larger number of unneeded roads would further reduce the frequency of human-caused fires. However, this could also reduce access for fire suppression. The same alternative firefighting strategies would be used to suppress fires in the absence of roads allowing motorized access. For this reason, road decommissioning under the proposed action is not expected to greatly affect the Forest Service's ability to suppress fires. It is expected that approximately 4 fewer miles of roads would be constructed for fire suppression purposes under the proposed action than under the no action alternative (*see* Table 5). Under the proposed action, roads could be constructed in roaded areas or in roadless areas for compelling reasons, including a need to protect forest health (*e.g.*, for disease or insect control).