



CHAPTER 2. ALTERNATIVES, INCLUDING THE PROPOSED ACTION

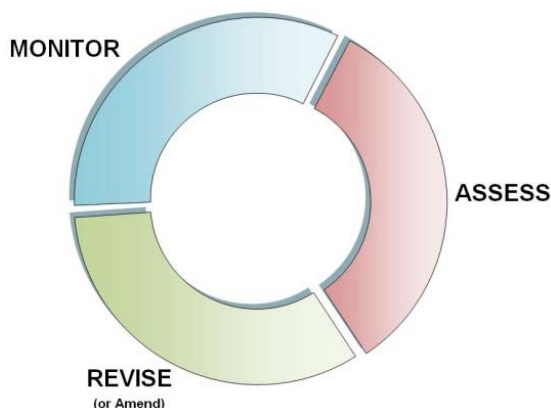
This chapter describes and compares the alternatives considered for the proposed planning rule. It includes a description of each alternative considered in detail, although the full text of the alternatives, including the proposed action, is found in the Appendices. This section also presents the alternatives in comparative form, sharply defining the differences between each alternative and providing a clear basis for choice among options by the decisionmaker and the public.

ALTERNATIVES CONSIDERED IN DETAIL

The Forest Service developed six alternatives for detailed analysis, including the no-action and proposed action alternatives, in response to the significant issues.

Alternative A (Proposed Action)

Adaptive management is recognized as a useful land management strategy to address uncertainty and has become increasingly important as managers realize that knowledge of ecological systems is incomplete. The proposed planning rule establishes an adaptive framework within which land managers and partners would work together to understand conditions on the land, develop land management plans to respond to existing and predicted conditions and needs, and monitor changing conditions and the effectiveness of projects and activities to provide a continuous feedback loop. The framework consists of a three-part learning and planning cycle:



- Assess conditions and stressors on the NFS unit and in the context of the broader landscape and determine whether there is a need for change;
- Revise or amend land management plans based on the need for change; and
- Monitor to detect changes on the unit and across the broader landscape and to evaluate whether progress is being made toward desired outcomes.

People have commented that empowering the line officer running the collaborative process to be the decisionmaker would strengthen the collaborative process. The

proposed rule would make the supervisor of the national forest, grassland, prairie, or other comparable administrative unit the responsible official for approving new plans, plan revisions, and amendments.

People note that science is evolving so fast that the rule should not be too prescriptive in what it requires and that there should be enough flexibility to accommodate new information over time. Rather than prescribe specific scientific techniques, the proposed rule would require the responsible official to take science into account in the planning process and requires documentation as to how science was considered.

People consistently express a desire to be involved in land management planning early and often, from helping craft the proposed plan revision or amendment to tracking whether the unit is making progress toward meeting the plan desired conditions, objectives, or other elements of plan content. The proposed rule would require the responsible official to provide opportunities for public participation throughout all stages of the planning process. In designing the public participation requirements of the proposed rule, the Forest Service used the Council on Environmental Quality's publication "Collaboration in NEPA—A Handbook for NEPA Practitioners," available at http://ceq.hss.doe.gov/ntf/Collaboration_in_NEPA_Oct_2007.pdf.

Many people have identified a need to better engage groups and communities who have traditionally been underrepresented in land management planning. People also have commented on the importance of engaging youth in land management planning, because of the unique perspective they bring and because they will visit NFS lands for the lifetime of the plan implementation. The proposed rule therefore requires the responsible official to encourage participation by youth, low-income, and minority populations, so that land management planning accounts for the interests and needs of all affected individuals and communities.

The Agency heard from Tribes and tribal organizations that discussed the obligation the Forest Service has to Tribes regarding treaty rights, protecting and honoring reserved rights, and fully recognizing the unique government-to-government relationship that exists between the United States and Tribes. Tribes also stressed the importance of considering tribal traditional knowledge in the planning process. The proposed rule would require the responsible official to provide the opportunity to undertake consultation with federally recognized Indian Tribes and Alaska Native Corporations. In addition, the proposed rule would require the responsible official to encourage participation by interested or affected federally recognized Indian Tribes and Alaska Native Corporations. As part of tribal participation and consultation, the responsible official would invite Tribes to share native knowledge during the planning process. Land management plans would be required to be consistent with Indian treaty rights.

The Agency received comments from state, county, and other local governments that land management planning needs to be coordinated with all relevant government policies and plans. To address this need, the proposed rule would require that the responsible official coordinate planning with the equivalent and related planning efforts of other Federal agencies, State and local governments, and Indian Tribes.

Many people have asked that the proposed rule streamline planning, that it not include detailed processes and methods that rapidly become outdated, and that it allow for maximum flexibility at the unit level to develop plans that reflect the unique characteristics of the local unit. At the same time, many people want to see very specific requirements and national standards that apply to all units for a particular resource of interest.

Based on public comment and experience, the proposed rule would require assessments to identify and evaluate information needed to understand and assess existing and potential future conditions and stressors in order to inform and develop required plan components and other content in the plan. These assessments would include relevant information from other governmental or non-governmental assessments, plans, reports, and studies. Most notably, assessments would identify the distinctive roles and contributions of the unit within the context of the broader landscape, considering the roles of the unit in providing multiple uses, including ecosystem services, from the NFS lands to the local area, region, and the Nation. The identification of the unit's roles and contributions within the larger landscape directly supports development of desired conditions and objectives. The requirement for assessments is intended to lead each unit to develop a plan that reflects its unique characteristics, while addressing issues of importance for the NFS and setting priorities for management. Assessments could range from narrow in scope to comprehensive, depending on the issue or set of issues to be evaluated.

The proposed rule would require plans to include five plan components—desired conditions, objectives, standards, guidelines, and suitability of areas for resource management. A sixth plan component (goals) may also be included to provide broad statements of intent usually to management process or interaction with the public. While existing plans include provisions that are labeled as goals, desired conditions, objectives, standards, guidelines, and suitability of areas, the proposed rule would not use these terms in the same way as plans developed under the 1982 provisions. For example, the term “guideline” is used but not defined in the 1982 rule, nor is it defined in the current, 2000 planning rule. In the proposed rule it would be defined as a constraint on project and activity decisionmaking that allows for departure from its terms, so long as the intent of the guideline is met. The proposed rule would apply specific project and activity consistency requirements to each of these plan components.

A common theme heard throughout the collaborative effort is the importance of maintaining or regaining healthy, resilient ecosystems and the benefits that resilient systems provide, such as reduced risk of large, high-intensity fires, connected habitats for wide ranging species, and both the short- and long-term economic benefits that healthy ecosystems provide. People have also said they want the planning rule to recognize the importance of multiple uses and the economic and social values provided by NFS lands while balancing those benefits among local, regional, and national interests and the long-term health and productivity of the land. The proposed rule would require all plans to include plan components to guide the maintenance or restoration of the structure, function, composition, and connectivity of healthy and resilient aquatic ecosystems and

watersheds in the plan area. In addition, the proposed rule would include plan components to guide the unit's contribution to social and economic sustainability.

The Forest Service has heard from many people that today, more than ever, water resources must be maintained, restored, and protected. Many have expressed a reminder that one of the original purposes for establishing the NFS was to secure favorable conditions of water flows. Under the proposed rule, plans would include components to maintain, protect, or restore aquatic elements, such as lakes, streams, public water supplies, source waters, shorelines, rare aquatic plant and animal communities, and riparian areas.

Species viability has been a topic of great concern throughout the collaborative process. Many of those who commented believe strongly that viability is a critical part of the rule and a variety of approaches were recommended, but there was no consensus around one particular approach. Among wide-ranging opinions, some people want approaches based on: protecting and maintaining healthy habitats and sustainable ecosystems coupled with validation through monitoring; promoting biodiversity and measuring it with a biodiversity index; monitoring landscape characteristics as proxies for a suite of species; or reducing stressors in the environment that can affect species diversity. The proposed rule would require plan components for the conservation of all native aquatic and terrestrial species, with the aim of providing the ecological conditions to contribute to the recovery of federally listed threatened and endangered species and maintain viable populations of species of conservation concern. The proposed rule would also require identification of select watershed conditions, select ecological conditions, and a set of focal species to monitor and assess the degree to which ecological conditions are supporting diversity of plant and animal communities and ecological sustainability.

The high value placed on recreation has been a common theme throughout the collaborative process to develop the planning rule. Many people have said they felt recreation was being ignored as a stand-alone issue area, and they wanted to see it treated separately. Others express a belief that recreation must be considered along with and equal to all other multiple uses. The proposed rule would integrate recreation concerns in plans and recognize the importance of recreation and the value of recreation for connecting people to the land. The proposed rule would require plan components for sustainable recreation, considering opportunities and access for a range of uses. These components would be informed by assessments and monitoring. The proposed rule would define sustainable recreation as the set of recreational opportunities, uses, and access that, individually and combined, are ecologically, economically, and socially sustainable, allowing the responsible official to offer recreation opportunities now and into the future. Recreational opportunities can include non-motorized, motorized, developed, and dispersed recreation on land, water, and air. In addition, the proposed rule provides that plans should identify recreational settings and desired conditions for scenic landscape character.

The proposed rule also contains specific requirements based on the NFMA for management of timber. These requirements include:

- Identifying lands not suitable for timber production;

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- Reviewing lands not suitable for timber production every 10 years;
- Allowing harvest of trees on land not suitable for timber production;
- Allowing harvest of trees for salvage, sanitation, or public health or safety;
- Developing plan components to ensure harvest is consistent with the protection of soil, watershed, fish, wildlife, recreation, aesthetic resources, and other requirements of the NFMA;
- Developing plan components required for maximum size openings;
- Determining limits on the quantity of timber that can be removed; and
- Specifying requirements related to timber harvest at the culmination of mean annual increment.

These requirements are not substantially different in this rule from previous rules. However, these requirements should be read in the context of other requirements in this alternative, including sustainability requirements.

Throughout the collaborative process, scientists and other stakeholders have emphasized the importance of monitoring requirements in the planning rule. Some say that the Forest Service has not done enough monitoring in the past, monitoring is sometimes an afterthought, the data are sometimes not very helpful, and the data that are collected sometimes go unused. Many say that monitoring deserves more attention and funding than it currently receives so that it becomes a standard part of land management. The proposed rule provides guidance for plans to require meaningful and accountable monitoring through a structured public process that evaluates changes on the unit and across the broader landscape. Monitoring would be used to assess progress toward achieving desired conditions in plans and for evaluating whether there is a need for plan revision or amendment. The proposed rule would also require monitoring and evaluation of the status of a small set of focal species selected to assess the degree to which ecological conditions are supporting diversity of plant and animal communities within each plan area.

People indicate a desire for water resources to be monitored on national forests and grasslands both within NFS lands as well as upstream and downstream. As a result of this suggestion, questions and indicators for select watershed conditions would be addressed in the unit monitoring plans. Agency directives would include additional requirements for monitoring protocols.

Public comment about plans emphasizes the need to be able to change plans quickly. The proposed rule includes requirements for a monitoring program envisioned to facilitate rapid evaluation and amendment of plans, as needed. The proposed rule also provides for administrative changes of plans—an expedited process for making changes to parts of the plan other than the plan components.

People express a consistent desire for greater transparency and information-sharing in the development, revision, and amendment of plans. Toward that end, many people said new

plans and plan revisions should continue to be accompanied by an environmental impact statement and record of decision. The proposed rule would require an environmental impact statement and a record of decision for new plans and plan revisions.

Documentation for plan amendments would be determined by the significance of effects pursuant to Agency NEPA procedures and could, therefore, be categorically excluded from documentation or documented in an environmental assessment or environmental impact statement. Decision documents would be required to include rationale for the decision and how the decision meets requirements of various provisions in the rule. The proposed rule would also require that planning records be readily available to the public.

The NFMA requires that “resource plans and permits, contracts and other instruments for the use and occupancy of National Forest System lands shall be consistent with the land management plans” (16 U.S.C. 1604 (i)). The proposed rule would require the approval document for the plan, plan amendment, or plan revision to clarify what existing uses or project decisions are consistent with the plan and would be allowed to continue, and thus be deemed consistent with the plan. Those not deemed consistent would have to be modified to be consistent or terminated as soon as practicable.

There is general public consensus that people want to be informed early and often on the various stages of the planning process, with clear parameters for when and how they could be involved. Several of the public meetings included discussion that centered on the importance of doing outreach through a variety of methods so that a diverse group of people and communities would know about the opportunities to be involved during the planning process. The proposed rule would require responsible officials to provide formal public notification when:

- An assessment begins;
- Development begins on the proposed plan, plan amendment or plan revision;
- The proposed plan, plan revision, or plan amendment and the associated environmental documentation are made available for comment;
- The objection period begins; and
- The plan, plan amendment, or revision is approved.

The responsible official would also be required to be proactive and use contemporary tools such as the internet to provide broad access and meet the unique needs of the local community, as well as requiring that notices concerning a new plan or plan revision be published in the *Federal Register* and the planning unit’s newspaper of record.

Responsible officials initiating a plan revision or development of a new plan before the proposed rule goes into effect would have the option to complete their plans under the current rule or conform the planning process to the requirements of this rule after providing notice to the public. All plan revisions or new plans initiated after this rule takes effect would have to conform to the new planning requirements. There would be a 3-year transition window, during which time plans could be amended using either the current rule or this rule.

The proposed rule includes a severability provision, stating if parts of the proposed rule are separately challenged in litigation, individual provisions of the rule could be severed and the other parts of the rule could continue to be implemented.

The proposed rule includes definitions of special terms used in the rule.

The proposed rule provides a pre-decisional administrative review process for proposed plans, plan amendments, and plan revisions. The proposed objection process is based on the objection regulations for certain proposed hazardous fuel reduction projects, found at 36 CFR Part 218, and is intended to foster continued collaboration in the administrative review process.

The complete text of the proposed rule is provided in Appendix A.

Modified Alternative A (Preferred Alternative)

Modified Alternative A includes the same concepts and underlying principles as Alternative A. However, there have been many changes to the rule text and structure. The changes are based on public comment received during the comment period on the draft PEIS and the proposed rule (Alternative A). Many people who commented on the proposed rule thought that it lacked clarity and that the language was ambiguous. Others felt that the intent stated in the preamble of the proposed rule was not reflected in the actual text of the proposed rule itself.

The Forest Service considered the available option of replacing Alternative A with new proposed rule text. However, because Modified Alternative A *looks* different than Alternative A, it is included as a new alternative for transparency and the ease of the reviewer.

The full text of Modified Alternative A can be found in Appendix I. Several changes were made to Alternative A based on comments received during the public comment period for the proposed rule and the draft PEIS; these changes are reflected in Modified Alternative A. A detailed description of the changes and the rationale for them can be found in the Response to Comments section of the PEIS in Appendix O. Examples of some of the changes to Alternative A that are incorporated into Modified Alternative A are described below.

Modified Alternative A adds the provision that the Chief of the Forest Service shall “Establish and administer a national oversight process for accountability and consistency of NFS land management planning under this part” (§ 219.2(b)(5)(ii)).

Modified Alternative A clarifies that standards and guidelines must be part of the set of plan components required in sections 219.8-11, which are the sections that include specific requirements for plan components.

The requirement in Alternative A that states the responsible official “take into account the best available scientific information (BASI)” has been changed in Modified Alternative A. Modified Alternative A requires that: “The responsible official shall use best available scientific information to inform the planning process required by this

subpart. In doing so, the responsible official shall determine what information is the most accurate, reliable, and relevant to the issues being considered” (§ 219.3).

Additionally, the requirements for documentation of BASI in every assessment report, plan decision document, and monitoring evaluation report were reduced in Modified Alternative A, along with the listed criteria for what the documentation must accomplish. Modified Alternative A requires that the responsible official document how best available scientific information was used to inform the assessment, plan decision, and the monitoring program. Documentation must identify what information was determined to be the best available scientific information, explain the basis for the determination, and explain how the information was applied to the issues considered (§ 219.3).

Modified Alternative A eliminates the phrase “to the extent practicable and appropriate” at § 219.4(b)(1).

Modified Alternative A:

- Clarifies that “Assessments rapidly evaluate existing information to assess relevant ecological, economic, and social conditions, trends, and sustainability and their relationship to the land management plan within the context of the broader landscape” (§ 219.5(a)(1)).
- Eliminates the requirement for formal notification of an assessment, and instead requires responsible officials to coordinate or provide opportunities for the regional forester, State and Private Forestry, Research and Development, Tribes, Alaska Native Corporations, other partners, and the public to consolidate existing information for the assessment (§ 219.6(a)(2)).
- Includes a specific list of 15 items for which existing information relevant to the plan area must be identified and evaluated in the assessment (§ 219.6(b)(1-15)).
- One substantive change to the list is the addition of baseline assessment of carbon stocks at § 219.6(b)(4). This replaces the requirement to monitor above ground carbon stocks, which was previously in the monitoring section of Alternative A (§ 219.12).

Modified Alternative A includes clarifying language stating that suitability identifications may be made after consideration of historic uses and of issues that have arisen in the planning process (§ 219.7(e)(1)(5)).

A requirement was added to Modified Alternative A to clarify that the regional forester shall identify the species of conservation concern for the plan area, in coordination with the responsible official (§ 219.7(c)(3)).

Modified Alternative A replaces the terms “health and resilience” with “ecological integrity” at § 219.8(a)(1).

Several changes and additions were made to the direction on riparian areas. Modified Alternative A requires that plans “establish widths for riparian management zones around all lakes, perennial and intermittent streams, and open water wetlands...giving special

attention to land and vegetation for approximately 100 feet from the edges of all perennial streams and lakes” (§ 219.8(a)(3)(ii)). Modified Alternative A also adds a requirement that plan components “must ensure that no management practices causing detrimental changes in water temperature or chemical composition, blockages of water courses, or deposits of sediment that effect water conditions or fish habitat shall be permitted” (§219.8(a)(3)(ii)(B)). Modified Alternative A also requires that plans requires implementation of national best management practices for water quality (§ 219.8(a)(4)).

Clarifying language was added to Modified Alternative A at § 219.8(a)(3). Modified Alternative A requires plans to include plan components, including standards and guidelines, to maintain or restore the ecological integrity of riparian areas in the plan area including plan components to structure, function, composition, and connectivity, taking into account: water temperature and chemical composition; blockages (uncharacteristic and characteristic) of water courses; deposits of sediment; aquatic and terrestrial habitats; ecological connectivity; restoration needs; and floodplain values and risk of flood loss. This added language clarifies that the requirements at § 219.8(a)(1) of Alternative A and Modified Alternative A apply to riparian areas.

Modified Alternative A adds a requirement that plan components to guide the plan area’s contribution to social and economic sustainability must take into account opportunities to connect people with nature to promote natural resource conservation and human health (§ 219.8(b)(6)).

Several changes in organization and wording were made to Diversity of Plant and Animal Communities section of Modified Alternative A (§ 219.9) for clarity. An introductory paragraph was added to clarify the intent of the provisions. The term “ecosystem integrity” was added to be consistent with changes to § 219.8 and the preamble of the proposed rule. Additionally, the ecosystem diversity (coarse filter) and species-specific (fine filter) requirements were reorganized. This alternative also clarifies that requirements for additional, species-specific plan components would apply if the components for ecological integrity and ecosystem diversity do not provide sufficient ecological conditions (§ 219.9(b and c)).

Changes were made in Modified Alternative A to clarify the intent of § 219.10 on Multiple Uses. At § 219.10(a), the wording was rearranged to clarify the intent that plans must provide for multiple uses and ecosystem services. Modifications were made to clarify wording, make requirements parallel to other sections of the rule, and respond to public comments. A requirement was added to have plan components, including standards and guidelines, for integrated resource management to provide for multiple uses and ecosystem services in the plan area. A definition for integrated resource management was also added in § 219.19.

Changes were made to the list of elements the responsible official shall consider when developing plan components, at § 219.10(a)(1-10).. Some of these changes to (a)(1-10) include:

- changing the term “recreational values” to “recreation opportunities” and adding “and uses” to recognize that the list in (a)(1) includes both resources and uses and that there may be other resources and uses relevant to the plan area;
- modifying wording to emphasize that responsible officials should specifically consider habitat conditions for species that are used or enjoyed by the public for recreational opportunities such as hunting and fishing, or for subsistence and adding a requirement that the responsible official shall collaborate with other land managers when doing so (a)(5);
- adding a requirement to consider land status and land use patterns as part of the focus on an all-lands approach to managing the plan area in the context of a broader landscape (a)(6);
- moving a requirement to consider public water supplies and associated water quality (a)(9) to this section; and
- adding a requirement to consider opportunities to connect people to nature, recognizing that plans should consider both the resources on the plan area and people’s connection to them (a)(10).

Some changes were also made to § 219.10(b), which includes a list of topics plan components must provide for. Some of the modifications to this list clarify requirements for recreation; clarify the provisions for protection of wilderness and management of areas recommended for wilderness; and change wording about protection of designated wild and scenic rivers to include rivers determined to be suitable.

Several wording changes were made in Modified Alternative A to § 219.11 to provide clarity to the timber requirements of Alternative A. Overall, these changes provide clarity, make language more consistent with the requirements of NFMA, and remove duplicative requirements or language. The majority of these changes do not change the requirements reflected in Alternative A.

In § 219.12 (Monitoring) the “unit monitoring program” was changed to the “plan monitoring program” to clarify that monitoring is intended to focus on the plan components and is not geographically defined. A sentence was also added at § 219.12(a) to draw a clearer link between the monitoring program and the use of monitoring information for adaptive management of the plan area. Several edits were made to the list of required monitoring questions and associated indicators found at § 219.12(a)(5) in response to public comments, a full list of these changes can be found in the Response to Comments section in O.

The requirement of Alternative A at § 219.12(c)(1) for the responsible official to work with the public to identify potential monitoring needs during the assessment has been removed in Modified Alternative A. The requirement of Alternative A at § 219.12(c)(4) that responsible officials ensure that scientists are involved in the design and evaluation of unit and broad-scale monitoring was also removed in Modified Alternative A to avoid confusion and redundancy with other requirements. The requirement that the monitoring evaluation report must describe how best available science was taken into account in Alternative A was removed because the report is intended to be an evaluation of data and

information gathered by the plan monitoring program which must be informed by best available scientific information. A new requirement was added under Modified Alternative A at § 219.14(a)(4) to make clear that the plan decision document must document how the responsible official used best available scientific information to inform the plan monitoring program.

Minor modifications were made to § 219.13 for clarity, to respond to public comments that expressed confusion over certain requirements, and to make this section consistent with changes made to other sections of Modified Alternative A. A sentence was added at § 219.13(b)(3) to clarify that any plan amendment that may create a significant environmental effect and therefore require preparation of an EIS will be considered a significant change in the plan, requiring a 90-day comment period under § 219.16. To see a detailed description of the other minor modifications made to § 219.13 please see the Response to Comments section of Appendix O.

The time to file an objection was increased in Modified Alternative A from 30 days to 60 days if an EIS is prepared and to 45 days if an EIS is not prepared (Subpart B - § 219.56(a)).

Alternative B (No Action)

The “No Action” alternative, as stated by the Council on Environmental Quality, “may be thought of in terms of continuing with the present course of action until that action is changed” (Council on Environmental Quality, 1981). The “No Action” alternative is the 2000 planning rule, which, since the 2008 rule was set aside by court order, is the current rule (See 74 FR 67059 December 18, 2009). If the Department chooses to take no action, the 2000 rule would remain in effect. However, the “present course of action” under the 2000 rule is not the use of the 2000 rule in its entirety but the use of its transition provisions at 36 CFR 219.35, which allow use of the 1982 rule procedures to develop, revise, and amend land management plans until a new planning rule is in place. Since identifying a host of issues with the 2000 rule provisions, as explained in the PEIS at Chapter 1 and in the discussion section of Alternative F, the Forest Service has been relying upon the 2000 rule’s transition wording at § 219.35 to use the 1982 rule procedures to develop, revise, and amend land management plans.

The 1982 rule, as amended, is in Appendix B of the PEIS. However, only the procedures of this rule that apply to the development, revision, and amendment of land management plans are available for use pursuant to 36 CFR 219.35 of the current rule. The 1982 rule procedures require integration of planning for national forests and grasslands, by including requirements for integrated management of timber, range, fish and wildlife, water, wilderness, and recreation resources, with resource protection activities such as fire management, and the use of other resources such as minerals.

An appeal process has been used throughout the life of the 1982 planning rule and people are familiar with it. Under § 219.35 of the current (2000) rule, responsible officials have the option of using either a post-decisional appeal process or a pre-decisional objection process for challenging plan approval decisions.

The 1982 rule procedures require regional foresters to be the responsible official for approval of new plans and plan revisions.

This alternative would continue to require an environmental impact statement for new plans and plan revisions. Documentation for plan amendments would continue to be determined by the significance of effects pursuant to Agency NEPA procedures and could, therefore, range from categorical exclusions to environmental impact statements.

Rule text for this alternative is provided in Appendices B, C, and D of this PEIS, which contain planning provisions, transition provisions, and administrative review provisions respectively.

Alternative C

Some respondents to the NOI and some roundtable participants suggest the planning rule should include only the minimum requirements of NFMA. They argue that land management planning has greatly exceeded the scope and intent of NFMA and in so doing has taken an excessive toll in cost and time invested, by both Forest Service employees and the public.

The Agency also considered an alternative requiring the land management planning process and resulting plans to be limited to the minimum requirements of NFMA. After a preliminary analysis, that alternative was eliminated from detailed study because it would not meet the purpose and need (see Alternative H in this chapter). Alternative C was developed with provisions designed narrowly to meet the purpose and need along with the minimum requirements of NFMA.

Provisions to meet the purpose and need, but not otherwise required by NFMA, were included in this alternative to ensure that plans would be responsive to the challenges of climate change, the need for forest restoration, and to ensure the sustainable use of NFS lands to support vibrant communities. Specifically, the provision in this alternative at § 219.10 requires plan components to include guidance to identify and consider climate change, forest restoration and conservation, and social and economic elements of sustainability to support vibrant rural communities. Provisions were also added to ensure that plans would be developed in a collaborative manner. The provision in this alternative at § 219.4 requires the responsible official to use a collaborative and participatory approach to land management planning. The same provisions for pre-decisional objections found in Alternative A are also included in this alternative.

Unlike the other alternatives considered in detail, this alternative would not explicitly require preparation of an environmental impact statement for development of a new plan or for a plan revision. Instead, this alternative rule would rely on Agency NEPA implementing procedures at 36 CFR part 220 to determine the level of environmental analysis and documentation. Similar to other alternatives considered in detail, documentation for plan amendments would be determined by the significance of effects pursuant to Agency NEPA procedures and could, therefore, range from categorical exclusions to environmental impact statements. To facilitate comparison, rule text for this alternative was drafted following the same outline as Alternative A.

Alternative D

Alternative D consists of Alternative A with additional and substitute direction focused on coordination requirements at § 219.4, assessment requirements at § 219.6, sustainability requirements at § 219.8, species requirements at § 219.9, monitoring requirements at § 219.12, and some additional and alternative definitions at § 219.19.

This alternative was designed to evaluate additional protections for watersheds and an alternative approach to diversity of plant and animal communities. These approaches were addressed together because they both involve requirements for substantive plan content for resource protection, as opposed to other issues that are concerned with procedural requirements.

Some people assert that riparian condition is the primary determinant of the ecological integrity of the aquatic ecosystem and largely dictates the resilience of the aquatic environment to natural and human-induced change. These people agree that properly managed riparian areas will be more resilient to climate change than other areas because of their proximity to water. Others request that the planning rule prescribe a requirement for a climate change risk assessment for these and other resources most vulnerable to climate change. People also say a network of watersheds across the landscape can serve as near-term anchor points for restoration of broad-scale processes and recovery of broadly distributed species. They state a belief that protection of key watersheds and the values they provide is likely the most important contribution the Forest Service can make to its neighbors in an all-lands approach. Some people are proponents for stronger, more specific rule requirements for assessing, maintaining, and monitoring species viability within the plan area.

Unlike Alternative A, this alternative would require specific standards and guidelines, to establish conservation areas and key watersheds, prescribe standard buffer areas for riparian conservation, and place the highest restoration priority on road removal in watersheds. Watershed assessments would be required to provide information for defining conservation area boundaries and developing watershed monitoring programs. The alternative would require the identification of key watersheds to serve as anchor points for the protection, maintenance and restoration of habitat for species dependent on aquatic habitat. It would also require plans to provide spatial connectivity among aquatic and upland habitats.

This alternative would take a somewhat different approach from Alternative A for maintaining viable populations within the plan area. It would require an assessment prior to plan development or revision that identifies: current and historical ecological conditions and trends, including the effects of global climate change; ecological conditions required to support viable populations of native species and desired nonnative species within the planning area; and current expected future viability of focal species within the planning area. It would also require that the unit monitoring program establish critical values for ecological conditions and focal species that trigger reviews of planning and management decisions to achieve compliance with the provision for maintaining viable populations within the plan area.

See Appendix F for Alternative D text in a side-by-side comparison with Alternative A.

Alternative E

Alternative E consists of Alternative A with additional and substitute direction focused on prescriptive requirements for public notification at § 219.4, assessment requirements at § 219.6, and monitoring requirements at § 219.12.

Many people express a strong desire to see more and better monitoring than they have observed on NFS units to date. Respondents to the NOI and participants at all forums suggest many different components to monitor and/or assess, including: plant and animal diversity, watershed health, water resources, timber resources, recreation uses, economic and social benefits, and ecosystem resilience. Some people suggest that the planning rule should designate certain categories within which all NFS units need to conduct monitoring. Additional suggestions would have the rule require every plan to specify the triggers or signals that would be used in monitoring to prompt responsible officials to react to monitoring data in a timely manner. In response to these concerns and suggestions, this alternative prescribes an extensive list of monitoring and assessment questions and requires monitoring program descriptions to identify signals for action for each question and its associated indicator.

People note that monitoring must be designed to be effective and they express a desire for more accountability for Forest Service actions. They suggest that regular monitoring reports at 1-, 2-, or 5-year intervals would greatly increase accountability. Regular reporting would also help the Forest Service understand whether and how its standards or benchmarks are or are not being met. Some people suggest that the rule provide clear performance measures to ensure the Agency fulfills monitoring commitments. In response, this alternative specifies performance accountability for line officers' management of unit monitoring and adds responsibility for the Chief to conduct periodic evaluations of unit monitoring programs and the regional monitoring strategies.

People also consistently express a desire to be involved in land management planning early and often, from helping to craft the proposed plan revision or amendment to tracking whether the unit is making progress toward meeting the plan desired conditions, objectives, or other elements of plan content. Some express a further desire to see prescriptive requirements for collaboration in the planning rule in order to ensure consistency and accountability across NFS units. In response, this alternative adds more prescriptive requirements for public participation in the planning process. To help connect people to the outdoors, this alternative also includes requirements for plans to provide for conservation education and volunteer programs.

See Appendix G for Alternative E text in a side-by-side comparison with Alternative A.

ALTERNATIVES ELIMINATED FROM DETAILED STUDY

Several alternatives were considered and eliminated from detailed study. Based on public comment received on the draft PEIS, two additional alternatives (Alternatives M and N) were considered and then eliminated from detailed study in this PEIS. All of the

following alternatives were eliminated from further study because they do not meet the stated purpose and need for action in one or more ways, or are so similar to the proposed action or other alternatives considered in detail in this final PEIS that the differing content did not warrant detailed analysis. The reasons for why each alternative was dismissed from detailed analysis are discussed below.

Alternative F

The complete set of provisions of the 2000 planning rule were considered but eliminated from detailed study for a number of reasons. The Agency has had the opportunity to use the 2000 rule for over a decade and has never chosen to do so. The 2000 planning rule does not meet the purpose and need as described in Chapter 1 of this PEIS. After adoption of the 2000 rule, the Secretary received a number of comments from individuals, groups, and organizations expressing concerns whether implementation of the 2000 rule was feasible. In addition, lawsuits challenging promulgation of the rule were brought by a coalition of 12 environmental groups from seven states and by a coalition of industry groups (*Citizens for Better Forestry v. USDA*, No. C-01-0728-BZ- (N.D. Cal., filed February 16, 2001)) and *American Forest and Paper Assn. v. Veneman*, No. 01-CV-00871 (TPJ) (D.D.C., filed April 23, 2001)). As a result of these lawsuits and concerns raised in comments to the Secretary, the Department of Agriculture initiated a review of the 2000 rule, focusing on the concerns raised about feasibility of implementation. The NFMA Planning Rule Review, completed in April 2001, concluded that many of the concerns were serious and required immediate attention (USDA Forest Service 2001a).

The NFMA Planning Rule Review found the following:

- In the 2000 rule, ecological sustainability is a new management standard and economic and social sustainability has secondary focus, which contravenes multiple use and sustained yield principles;
- There are three problems identified regarding the viability provisions in the 2000 rule. First is the level of precision implied for measurement of viability; second is that the viability requirement in the rule extends beyond what is required in statute; and third, a coarse-filter approach has been offered as being more consistent with scientific feasibility and more consistent with management of ecosystems than hundreds of individual species assessments.
- The rule injects scientists directly into the planning process. While it might be appropriate to consider the best available science, it is the science that is relevant, not the person bringing it. The rule requirement to consult scientists could lead to confusion about what role the scientists play in the decision.
- Increasing dependence on Research and Development scientists alone would effectively overwhelm the research mission of the Forest Service.
- The rule requires considerable analysis of ecological, economic, and social components of sustainability, all of which must be accomplished using the best

available science. Those analysis requirements are substantially greater than anything accomplished in even the most intense planning efforts and they are likely beyond the Agency's capability.

- The rule calls for a science advisory board to provide scientific advice on issues identified by the Chief, and Federal Advisory Committee Act (FACA)-compliant regional advisory boards to advise regional foresters regarding the application of science. The processes to establish FACA-compliant science advisory boards are difficult. Their costs could be substantial.
- The rule describes a level and specificity of monitoring that might not be feasible. The rule includes requirements that establish monitoring methods, frequency of sampling, and sampling protocols.

In addition, the Forest Service developed a business analysis model of the 2000 rule and then conducted a workshop with field-level planners to determine how to implement the 2000 rule based on the business model. The business model provided the basis for a systematic evaluation of the rule. The facilitated workshop centered on answering two questions:

- Are the business requirements clearly understood?
- What is the Agency's perceived ability to execute the requirements?

An important consideration is that the evaluation of the 2000 rule was conducted by planning practitioners with current field-level experience. The practitioners were Agency experts in a variety of resource areas that could assess what can reasonably be accomplished, considering existing knowledge and information, the issues relevant to planning areas, and local staffing and funding situations. The business model review determined that implementation of the 2000 rule would require significantly more time and budget than the Agency had previously committed to updating and maintaining unit plans (USDA Forest Service 2002a).

The business model analysis workshop raised the following issues, which are similar to those noted by the NFMA Planning Rule Review:

- The ability to achieve the ecological, social, and economic sustainability standards in the 2000 rule and the viability provisions for the diversity of plant and animal communities is questionable;
- The 2000 rule includes unnecessarily detailed procedural requirements for scientific peer reviews, broad-scale assessments, monitoring, and science advisory boards;
- The rule requirements do not recognize the limits of budgets for use of science and do not clearly relate use of science to the scope of issues in the planning process;
- The 2000 rule also does not recognize limitations on the availability of scientists. It is unwise to place such detailed requirements on the use of scientists in the rule given the ambiguities of the rule text and the limited availability of scientists.

Although science is needed to inform the responsible official, the reviewers concluded that the 2000 rule anticipated a level of involvement by scientists that might not be needed considering the planning issues or the anticipated amount of project activities in the plan area;

- The unnecessarily detailed requirements for monitoring and evaluation in the 2000 rule are likely beyond the capacity of many units to perform;
- Mixing programmatic and project-level planning direction throughout the rule is confusing; and
- The monitoring requirements in the 2000 rule are overly prescriptive and do not provide the responsible official sufficient discretion to decide how much information is needed.

The business model analysis workshop conclusions are a suitable summary of both reviews:

- The 2000 rule has both definitions and analytical requirements that are very complex, unclear, and, therefore, subject to inconsistent implementation across the Agency;
- Compliance with the regulatory direction on such matters as ecological sustainability and science consistency checks would be difficult, if not impossible, to accomplish; and
- The complexity of the 2000 rule makes it difficult and expensive to implement.

Based on the findings of the NFMA Planning Rule Review and the business model analysis workshop, the Department concluded that the 2000 rule is not within the Agency's capability to implement on all NFS units, and therefore does not meet the purpose and need for a new planning rule.

Alternative G

Some respondents to the draft EIS stated that a new planning rule should include only the minimum requirement from NFMA. They argue that land management planning has greatly exceeded the scope and intent of NFMA and in so doing taken an excessive toll in cost and time invested, by both Forest Service employees and the public. An alternative requiring the land management planning process and resulting plans to be limited to the minimum requirements of NFMA was considered. Rule language for this alternative is in Appendix H. After a preliminary analysis, this alternative was eliminated from detailed study because it does not meet the purpose and need in that such a rule would not ensure that plans emphasize restoration of natural resources to make NFS lands more resilient to climate change, protect water resources, and improve forest health, be responsive to the challenges of climate change, the need for forest restoration, the sustainable use of NFS lands to support vibrant communities, or that plans would be developed in a collaborative manner, all of which are components of the purpose and need for a new planning rule, according to the purpose and need as discussed in Chapter 1. There are no requirements

in NFMA to respond to climate change or needs for forest restoration and, therefore, no such requirements are in this alternative. While this alternative includes the NFMA requirement to “insure consideration of the economic and environmental aspects of various systems of renewable resource management” at 16 U.S.C. 1604(g)(3)(A), this requirement falls short of ensuring that **all** plans will be responsive to issues such as the challenges of climate change; the need for forest restoration and conservation, watershed protection, and species conservation; and the sustainable use of public lands to support vibrant communities. This alternative would provide for public participation by requiring simply what is prescribed by NFMA (16 U.S.C. 1604 (d) and (j)): Proposed plans and related environmental documents would be available to the public at convenient locations near the planning unit for a review period of at least 3 months. Public meetings or other comparable processes to foster public participation during this review period would be conducted. Plans would be publicized and available before a final decision. Again, this minimal approach would not satisfy the intention providing for a transparent, collaborative process that allows effective public participation.

While landscape level planning is possible and, based on current planning efforts, may even be likely under this alternative, this alternative does not ensure that planning takes place in the context of the larger landscape by taking an “all-lands approach.”

While any resulting land management plan prepared under this bare minimum rule could be collaboratively developed or revised to respond to climate change and restoration needs, and provide sustainable uses to support vibrant communities, this alternative would provide no *assurance* that all plans would address these needs. Based on comments and input received during the scoping period prior to preparing the draft EIS, this suggested alternative was modified so that it would meet the purpose and need and is considered in detail as Alternative C.

Alternative H

Some people express a belief that public input from local communities—those in or adjacent to a particular NFS unit—should be given more consideration than comments provided by individuals or special interest groups who are not part of the local community. These people argue that local communities have greater knowledge of local resource conditions and have a greater stake in the planning process because some or all of their economy is dependent on the NFS unit.

This alternative would consist of the proposed action, along with additional requirements for the responsible official to give greater consideration to comments from individuals or groups within communities in or adjacent to the NFS unit than to comments originating from outside these communities. This alternative was considered and eliminated from detailed study because it does not meet the purpose and need to meet obligations under the MUSYA and other legal requirements. First, the Organic Administration Act of 1897 states, “No national forest shall be established, except to improve and protect the forest within the boundaries, or for the purpose of securing favorable conditions of water flows and to furnish a continuous supply of timber for the use and necessities of citizens of the United States” (16 U.S.C. 475)(emphasis added). Second, MUSYA directs the Secretary of Agriculture to administer the renewable surface resources of the national forests for

multiple use, which is defined as “management of all the various renewable surface resources of the national forests so that they are utilized in the combination that will best meet the needs of the American people” (16 U.S.C. 531(a))(emphasis added). Finally, the Forest and Rangeland Renewable Resources Planning Act, as amended by the National Forest Management Act states the following:

(d) Public participation in management plans; availability of plans; public meetings

The Secretary shall provide for public participation in the development, review, and revision of land management plans including, but not limited to, making the plans or revisions available to the public at convenient locations in the vicinity of the affected unit for a period of at least three months before final adoption, during which period the Secretary shall publicize and hold public meetings or comparable processes at locations that foster public participation in the review of such plans or revisions.

16 U.S.C. 1604 (d) (emphasis added)

The above statutory provisions contemplate citizens, Americans, and the public at large and not any subset thereof. The Department does not feel that giving greater consideration to the comments and information originating from communities near a national forest or management unit fulfills the need for a new planning rule that must provide for a transparent, collaborative planning process, as described in the purpose and need for action in Chapter 1.

This alternative does not meet the purpose and need for a rule that provides for a transparent, collaborative process that allows effective public participation. It would be difficult to effectively engage diverse publics if people knew that their opinions and concerns would be given less weight or attention because they lived far away from the planning unit.

While disproportionate consideration of local input was eliminated from detailed study, local input would receive consideration under Alternatives A, Modified A, D, and E. Alternatives A, Modified Alternative A, D, and E would underscore the importance of considering the source of information, such as local sources, in requiring the responsible official to take into account the discrete and diverse roles, jurisdictions, responsibilities, and skills of interested and affected parties. These alternatives would also require responsible officials to encourage participation by private landowners whose lands are in, adjacent to, or otherwise affected by, or whose actions might impact, future management actions in the plan area. Finally, these alternatives would require the responsible official to engage local government agencies in the planning process and to coordinate with local plans.

Alternative I

Some people urge the Forest Service to develop a highly prescriptive planning rule that sets national standards for all aspects of land management plans, including establishing a road density standard for the entire NFS. This alternative would essentially constitute a

national land management plan inasmuch as it would stipulate the substance of all plan components to be included in each land management plan. This alternative was considered but eliminated from detailed study because it does not meet the purpose and need to be responsive to the challenges of climate change and the need for forest restoration and conservation. It also does not meet the purpose and need for requiring a consistent approach to ensure that all plans address the issues outlined by the Secretary and yet allow for land management plans to be developed and implemented to address social and ecological needs across the diverse and highly variable systems of the National Forest System.

The effects of climate change are expected to be felt differently across the NFS. For example, annual mean precipitation is projected to decrease in the Southwest but increase over the rest of North America. Projected changes in temperature and precipitation will likely lower forest productivity in Alaska, the Southwest, the Interior West, and eastern parts of the Southeast; and increase forest productivity in the Lake States, the Northeast, and western parts of the Southeast. See Climate Change Quick Facts at <http://www.fs.fed.us/emphasis/products/cc-facts.pdf>.

Setting a national road density standard would not be responsive to issues such as the need for watershed protection, and wildlife conservation, and the sustainable use of public lands to support vibrant communities. NFS units with large numbers of private in-holdings have necessarily high road densities to accommodate legal access. Setting a high enough national road density standard to accommodate such situations on one NFS unit would not protect mountainous watersheds with erodible soils or important wildlife habitat on another NFS unit. Conversely, a national standard for lower road densities might not be implementable where private landowners are entitled to access across NFS lands.

Similarly, forest restoration and conservation needs differ across the NFS. For example, many forests in the Forest Service's Eastern Region had already been restored from over-harvesting before they became NFS lands, whereas many forests in the Forest Service's Southern Region are working to restore long-leaf pine ecosystems. In the Rocky Mountain Region, vast outbreaks of mountain pine beetle could lead to as yet undetermined restoration needs. The creation of extensive national standards forgoes each unit's ability to be responsive to its respective challenges of climate change and restoration needs.

This alternative also would not meet the purpose and need to meet the requirements of NFMA. Section 6 (g) of the NFMA requires the Secretary of Agriculture to "promulgate regulations, under the principles of the Multiple-Use Sustained-Yield Act of 1960 (16 U.S.C. 528–531) that sets out the process for the development and revision of the land management plans ..." (16 U.S.C. 1604 (g)). This alternative would essentially be a land management plan instead of setting out a process for developing plans.

This alternative does not reflect Agency experience gained in more than 30 years of land management planning and would not result in an effective or efficient framework for developing plans that address social and ecological needs across the highly variable systems of NFS lands.

Aspects of this alternative are included in Alternative D, which requires the following national standards: each plan must determine a maximum road density standard, the default width for riparian conservation areas on all units is 100 feet, the activities within riparian areas would be limited to restoration activities only, and the highest priority for restoration on all units would be road removal in riparian areas.

Alternative J

Some comments received by the Forest Service suggest that the planning rule should allow timber harvest only for restoration purposes. This alternative would consist of Alternative A language with the exception of the timber suitability requirements at § 219.11. The timber suitability requirement at § 219.11(a)(1) would be replaced with a requirement to identify all lands within the plan area as not suitable for timber production. In addition, the provision at § 219.11(b)(2) would be changed to stipulate that timber harvest only for restoration purposes may occur on lands not suitable for timber production.

This alternative was considered but eliminated from detailed study because it does not meet the purpose and need to meet the requirements under the NFMA and meet obligations under MUSYA. The MUSYA directs the Secretary of Agriculture to develop and administer the renewable surface resources of the national forests for multiple use and sustained yield of the several products and services obtained from the national forests. The Act defines sustained yield of the several products and services as, “the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the national forests without impairment of the productivity of the land.” The Act includes timber as just one of the renewable surfaces resources subject to the multiple use and sustained yield mandate. For a rule to restrict timber harvest on all NFS units for the sole purpose of achieving restoration would be contrary to the letter and intent of MUSYA. Furthermore, NFMA’s requirement to identify lands suitable for timber production, and to review and reclassify lands to return lands to timber production when appropriate, indicates clear congressional intent to produce timber from NFS lands that are suitable for that purpose, whether such lands are in need of restoration or not (see 16 U.S.C. 1604(k)). Imposing a restriction to harvest only for restoration purposes at the national level would effectively eliminate all timber harvest from any NFS unit that did not need restoration activities.

Not all NFS lands are in need of restoration and are quite capable of supporting commercial timber production. This alternative does not meet the purpose and need of requiring a consistent approach to ensure that all plans address the issues outlined by the Secretary and yet allowing for land management plans to be developed and implemented to address social and ecological needs across the diverse and highly variable systems of the National Forest System.

Rejecting this alternative from detailed analysis by no means suggests that timber production must be a practice on all units of the NFS. Rather, the proper mix of the use of renewable resources should be determined on a unit by unit basis. None of the alternatives considered in detail in this document preclude a responsible official from identifying all lands on a NFS unit as unsuitable for timber production where appropriate.

Alternative K

Some people suggest that the recreational uses of NFS lands are in high and ever-increasing demand and that NFS lands should be primarily managed for that purpose. This alternative would require plans to give recreation the greatest value among the various multiple uses of NFS lands.

This alternative was considered and eliminated from detailed study because it does not meet the purpose and need to meet the requirements of the Multiple-Use Sustained-Yield Act. The Act defines multiple use as,

[T]he management of all the various renewable surface resources of the national forests so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some land will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

16 U.S.C. 531(a)

The Act clearly acknowledges that not all uses would occur on every acre and that “some land will be used for less than all of the resources” (16 U.S.C 531 (a)). The Act also states that resources should be managed in “the combination that will best meet the needs of the American people” (16 U.S.C 531 (a)). However, the Act directs the Secretary of Agriculture to give due consideration to the relative values of the various resources in particular areas (16 U.S.C. 529). Congress clearly expected that the specific uses, and the intensity of each use, must vary across the immensely varied lands that make up the NFS.

This alternative does not meet the purpose and need for allowing land management plans to be developed and implemented to address social and ecological needs across the diverse and highly variable systems of the National Forest System. While it might best meet the needs of the American people for one NFS unit to emphasize recreation over other uses, such might not be the case on another NFS unit. If the Agency established a specific combination of uses in a planning rule, that one combination would apply to all NFS lands. Such a model would block the ability of individual units to prescribe a more appropriate combination of uses based upon local resources.

Alternative L

Some people suggest the Forest Service undertake planning at a regional scale, in addition to planning at the national and unit scales. An alternative consisting of Alternative A with the additional requirements for regional planning, based on the 1982

rule was considered and eliminated from detailed study because it does not meet the purpose and need to be efficient and effective.

Requiring an additional layer of planning at the regional scale would add another layer of analysis and additional expense and time to the planning processes that already exist at the national and forest levels. It does not meet the purpose and need for an efficient framework for planning. The Agency has experience with regional-level planning, since the 1982 rule required the preparation of a regional guide and a planning process for the development of that guide. After many years of developing and using regional guides, the Agency found that they added an additional and time-consuming level of planning that often delayed progress of unit planning. Regional plans also tended to remain static and did not change as new information or science became available. Furthermore, most major issues that emerged regionally, such as issues regarding lynx or grizzly bears, were ultimately and effectively dealt with directly in the individual unit plans, usually through simultaneous amendment of multiple unit plans. This alternative does not meet the purpose and need that a planning rule must be consistent with the Agency's experience in land management planning. All other aspects of this alternative are incorporated into Alternatives A, Modified A, D, and E.

Alternative M

Alternative M is the 2008 planning rule. In early 2008, the USDA issued a final planning rule that was published in the *Federal Register* on April 21, 2008 (73 FR 21468). Citizens for Better Forestry and others promptly challenged the 2008 rule in court. The district court vacated the 2008 rule, enjoined the USDA from further implementing it, and remanded it to the USDA for further proceedings (*Citizens for Better Forestry v. USDA*, 632 F. Supp. 2d 968 (N.D. Cal. 2009)). See a more detailed account of this litigation in Chapter 1 - Planning Rule History.

On December 18, 2009, the USDA issued a Notice of Intent to Prepare an Environmental Impact Statement for a new planning rule, and asked for public comment (74 FR 67165). The formal comment period on the Notice of Intent ended February 16, 2010.

Alternatives to meet the purpose and need were developed based on public comment from this initial scoping period as well as on comments received at the roundtable meetings held throughout the country

(https://fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5155162.pdf). There were no requests to include the 2008 rule as one of the alternatives considered in detail and it was not included in the draft environmental impact statement (draft PEIS). However, during the subsequent comment period for the proposed rule and draft PEIS (February 14–May 16, 2011), some respondents requested that we include the 2008 rule as one of the alternatives considered in detail.

The 2008 rule was developed based on extensive public comment and Agency experience gained over the past three decades of land management planning. As a result, many of the underlying principles of the 2008 rule were incorporated into Alternatives A and Modified A. However, while the 2008 rule and Alternatives A and Modified A share similar principles, the 2008 rule took a different approach to rulemaking than Alternative A and Modified A in that the 2008 rule intended that many of the technical details and

methods would be placed in the Forest Service Directive System rather than in the body of the rule itself. The Record of Decision for the final rule described this approach as follows:

In keeping with the strategic and adaptive nature of planning, the Agency is striving to make rulemaking more strategic and adaptive. Therefore, many procedural and technical details have been moved to the Forest Service Directive System (Forest Service directives). Forest Service directives are the primary basis for the Forest Service's internal management of all its programs and the primary source of administrative direction to Forest Service employees. The FSM [Forest Service Manual] contains legal authorities, objectives, policies, responsibilities, instructions, and guidance needed, on a continuing basis, by Forest Service line officers and primary staff to plan and execute programs and activities. The FSH [Forest Service Handbook] is the principal source of specialized guidance and instruction for carrying out the policies, objectives, and responsibilities in the FSM.

73 FR 21478 (April 21, 2008)

The approach used by the 2008 rule generated a high level of public concern regarding Forest Service accountability and uncertainty related to consistent implementation. Based on this high level of concern, Alternatives A and Modified A, while including many of the principles of the 2008 rule, include more of the procedural and substantive requirements in the rule itself while still leaving the technical details (methods, models, criteria, etc.), which are more subject to change over time, to the directives.

The effects of this alternative would differ from Alternatives A and Modified A in that there would be greater uncertainty under this alternative that all planning units would use a consistent approach to ensure that plans will be responsive to issues of climate change, watershed protection, restoration and conservation, and wildlife conservation. The approach in this alternative of creating a more strategic and adaptive planning rule and placing many procedural and technical details in the directives falls within the range of alternatives between Alternative C and Alternatives A and Modified A.

Alternative M (the 2008 planning rule) was eliminated from detailed study because it does not meet the purpose and need in that the rule itself did not include requirements to emphasize “restoration of natural resources to make NFS lands more resilient to climate change, protect water resources, and improve forest health.” The 2008 rule did not contain requirements in the rule itself that would ensure plans would contribute to ecological sustainability, nor did the rule require all forest plans to be responsive to issues such as the challenges of climate change; the need for forest restoration and conservation, watershed protection, and species conservation; and the sustainable use of public lands to support vibrant communities. Furthermore, the 2008 rule itself did not require that planning processes would take an all lands approach. These are all components of the purpose and need for a new planning rule, as discussed in Chapter 1.

In addition, the Forest Service believes that the 2008 rule—with additional rule requirements to meet the purpose and need as described above for restoration, overall sustainability, vibrant communities, and considering an all lands approach—when considered with the Forest Service directives developed to implement that rule, does not represent a separate alternative. The 2008 rule was considered but eliminated from detailed study because it has the same underlying principles and, if modified to remedy the above deficiencies, would meet the purpose and need in a similar manner as Alternatives A and Modified A. In addition, because of their similarities, the programmatic environmental effects of the 2008 rule cannot be distinguished from those that may occur as result of implementing Alternatives A and Modified A.

For these reasons, the Forest Service did not analyze in detail the 2008 rule as a separate alternative, considers the alternative to inadequately meet the purpose and need, and considers it to be included within the parameters of the Alternatives A and Modified A. The Record of Decision for the 2008 Final Rule can be found at http://www.fs.fed.us/emc/nfma/includes/planning_rule/08_planning_rule.pdf

Table 1. Comparison of Underlying Principles of the Purpose and Need Between Alternative A and the 2008 Planning Rule

Purpose and Need	Alternative A	2008 Rule
Restoration	§ 219.8 Sustainability. (a) <i>Ecological sustainability</i> . Provisions under §§ 219.8 and 219.9 require plans to include plan components designed to maintain or restore ecological conditions.	“The Forest Service directives provide substantial additional guidance aimed at ensuring resource protection and restoration.” Record Of Decision for 2008 Rule, at 73 FR 21471 (April 21, 2008).
Climate change	§ 219.5.(a)“The intent of this framework is to create a responsive planning process that informs integrated resource management and allows the Forest Service to adapt to changing conditions, including climate change, and improve management based on new information and monitoring.”	“The land management planning process is informed by both a comprehensive evaluation and the best available science to evaluate the situation of the individual forest unit with respect to climate change.” Record Of Decision for 2008 Rule, at 73 FR 21476 (April 21, 2008).
Social and economic sustainability	§ 219.8 Sustainability. “(b).The plan must include plan components, including standards or guidelines, to guide the unit’s contribution to social and economic sustainability...”	§ 219.10. Sustainability. “(a) <i>Sustaining social and economic systems</i> . The overall goal of the social and economic elements of sustainability is to contribute to sustaining social and economic systems within the plan area.” Final 2008 Rule at 73 FR 21509 (April 21, 2008).

Purpose and Need	Alternative A	2008 Rule
Ecological sustainability	§ 219.8 Sustainability. The plan must include plan components, including standards or guidelines, to maintain or restore the ecological integrity of terrestrial and aquatic ecosystems and watersheds in the plan area, including plan components to maintain or restore structure, function, composition, and connectivity.	§ 219.10 Sustainability. “(b) <i>Sustaining ecological systems</i> . The overall goal of the ecological element of sustainability is to provide a framework to contribute to sustaining native ecological systems by providing appropriate ecological conditions to support a diversity of native plant and animal species in the plan area.” Final 2008 Rule at 73 FR 21509 (April 21, 2008).
Collaboration/public participation	§ 219.4 Requirements for public participation. “(a) <i>Providing opportunities for participation</i> . The responsible official shall engage the public—including Tribes and Alaska Native Corporations, other Federal agencies, State and local governments, individuals, and public and private organizations or entities—early and throughout the planning process as required by this part, using collaborative processes where feasible and appropriate. When developing opportunities for public participation, the responsible official shall take into account the discrete and diverse roles, jurisdictions, responsibilities, and skills of interested and affected parties; the accessibility of the process, opportunities, and information; and the cost, time, and available staffing. The responsible official should be proactive and use contemporary tools, such as the internet, to engage the public, and should share information in an open way with interested parties.”	§ 219.9 Public Participation, Collaboration, and Notification. “(a)... The responsible official must provide opportunities for the public to collaborate and participate openly and meaningfully in the planning process, taking into account the discrete and diverse roles, jurisdictions, and responsibilities of interested and affected parties. Specifically, as part of plan development, plan amendment, and plan revision, the responsible official shall involve the public in developing and updating the comprehensive evaluation report, establishing the components of the plan, and designing the monitoring program. Final 2008 Rule at 73 FR 21508 (April 21, 2008).
All-lands approach	§ 219.5 Planning framework. “(a)(1). <i>Assessment</i> . Assessments rapidly evaluate existing information about relevant ecological, economic, and social conditions, trends, and sustainability and their relationship to the land management plan within the context of the broader landscape.” § 219.7 New plan development or plan revision. (6)(b)(3) and (7)(e)(ii) Describe	§ 219.2 “Levels of planning and planning authority. Planning occurs at multiple organizational levels and geographic areas.” Final 2008 Rule at 73 FR 21506 (April 21, 2008). “Responsible officials currently coordinate across unit boundaries and would continue to do so because the areas of analysis for evaluations described in sections 219.6, 219.7,

Purpose and Need	Alternative A	2008 Rule
	<p>the unit's distinctive roles and contributions within the broader landscape..."</p> <p>§ 219.8 Sustainability. (a)(1) [The Plan must include components to maintain or restore ecosystem integrity,] taking into account:</p> <p>(i) The landscape integration of terrestrial and aquatic ecosystems in the plan area;</p>	<p>and 219.10 would often extend beyond the unit's boundaries to adjacent or nearby NFS units. In addition, the final rule provides the option for higher level officials to act as the responsible official for a plan, plan amendment, or plan revision across a number of plan areas when consistency is needed. The Forest Service already has directives that ensure consistency as needed for tribal or public consultation or for social, economic, or ecological resource related issues. Preamble to Final 2008 Rule at 73 FR 21481 (April 21, 2008).</p> <p>§ 219.9 Public participation, collaboration, and notification. "(a) <i>Providing opportunities for participation.</i> The responsible official must provide opportunities for the public to collaborate and participate openly and meaningfully in the planning process, taking into account the discrete and diverse roles, jurisdictions, and responsibilities." Final 2008 Rule at 73 FR 21508 (April 21, 2008).</p>
Use of scientific information	<p>§ 219.3 Role of science in planning. "...take into account the best available scientific information throughout the planning process identified in this subpart..."</p>	<p>§ 219.11 Role of science in planning. "(a) The responsible official must take into account the best available science." Final 2008 Rule at 73 FR 21509 (April 21, 2008).</p>
Efficient framework for planning	<p>The annual average undiscounted cost to the Agency for all planning-related activities under Alternative A is \$102.5 million per year. The annual average cost for Alternative A is estimated to be \$1.5 million per year lower than the 1982 rule procedures. (USDA Forest Service 2011a).</p>	<p>"Based on costs that can be quantified, carrying out this final rule is expected to have an estimated annual average cost savings of \$25.6 million when estimated annual average savings of \$0.2 million when compared to estimates of the 1982 rule. From this cost-benefit analysis, the estimated costs for carrying out the rule are expected to be lower than the 2000 rule." Preamble to Final</p>

Purpose and Need	Alternative A	2008 Rule
		2008 Rule at 73 FR 21504 (April 21, 2008).

Alternative N

The 1982 rule in its entirety was considered but eliminated for detailed analysis because the 1982 provisions do not meet the needs of the Agency or intent of the Secretary's vision. The 1982 rule procedures—which have been used to develop, revise, and amend all current land management plans—make for an unduly complex, costly, lengthy, and cumbersome planning process. Moreover, the 1982 rule provisions are not current with regard to science, knowledge of our environment, social values, and include burdensome planning analysis procedures of the 1970s that do not reflect contemporary planning practices.

The 1982 rule procedures lag behind Agency expertise and best practices in planning. The rule does not meet several elements of the purpose and need. It does not:

- emphasize restoration of natural resources to make our NFS lands more resilient to climate change, protect water resources, and improve forest health;
- ensure **all** plans will be responsive to issues such as the challenges of climate change; the need for forest restoration and conservation, and watershed protection;
- ensure that planning will reflect the Agency's expertise and experience gained in over thirty years of land management planning;
- ensure planning takes place in the context of the larger landscape by taking an "all-lands approach;"
- represent a clear and efficient framework for planning, and in many cases, cannot be implemented within the financial capacity of the Agency; or
- provide consistency with federal policy on the use of scientific information and the Agency's expertise and experience gained in more than 30 years of land management planning.

The 1982 rule procedures have proven costly to implement. The 1982 planning provisions require complex analysis processes, such as the analysis of management situation and benchmark analysis, resulting in plan revisions that have, on average, taken five to seven years to complete. In 1989, the Forest Service, with the assistance of the Conservation Foundation, conducted a comprehensive review of the planning process and published the results in a summary report, "Synthesis of the Critique of Land Management Planning"

(http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5127602.pdf). The Critique found that the planning process of the 1982 rule was very complex, had significant costs, took too long, and was too cumbersome.

Alternative N also does not meet the purpose and need of being consistent with current science. Alternative N is largely reliant on the ability of selected MIS and their associated habitat conditions to adequately represent all other vertebrates in the plan area. The MIS approach for assessing the effectiveness of plan implementation on maintaining viable populations of species within the plan area, or determining the effects of management on associated species is not supported by current science. Also, experience has demonstrated that statistically adequate population trend information generally requires many years (10 to 20+ years) over large scales (100s to 1,000s of square miles) and has only been accomplished for a limited number of species (such as northern spotted owl, grizzly bear, and red-cockaded woodpecker). See the section on Diversity of Plant and Animal Communities in Chapter 3.

Furthermore, the provisions of Alternative N do not represent a separate alternative from those considered in detail within this PEIS.

Most of the 1982 planning rule elements that govern the development, revision, and amendment of land management plans are part of Alternative B (No Action). Alternative B's transition provisions at 36 CFR 219.35 allow use of the 1982 rule provisions for land management planning. The analysis of Alternative B provides a description of these planning procedures and the effects of those procedures compared to the other alternatives under consideration in the PEIS.

However, concerns raised during the public comment period have suggested that there are other elements in the 1982 planning rule that are not incorporated into the design of Alternative B and that these elements would cause substantially different effects on national forest system lands from those described for Alternative B. Alternative N is essentially an incremental alternative that would add these elements to Alternative B. The requirements that are not included in Alternative B but would be included in Alternative N are:

- Requirements for the preparation and use of regional guides (sections 219.8 and 219.9 of the 1982 planning rule). The requirement for regional guides is included in Alternative L which was considered and eliminated from detailed analysis. See Chapter 2 of this document.
- Requirements that would directly apply to projects as well as the plan. In the 1982 rule, section 219.27 (Management Requirements) guides the implementation of forest plans, and Sections 219.19 and 219.21(g) are also considered to apply to both forest planning and plan implementation. No other section of the 1982 rule is considered to apply directly to projects. Projects are required to be consistent with the plan (Section 219.10(e) of the 1982 rule).

An approach to assuring that the provisions of the proposed rule are carried forward to the project level is encompassed in the consistency provisions of Alternatives A, Modified A, D, and E. Though Alternatives A, Modified A, D, and E do not include rule provisions specific to the project level, they do incorporate consistency provisions that ensure that plans are consistent with the rule and that projects are consistent with plans. Alternatives A, Modified A, D and E provide a different approach to ensuring that

requirements of the rule are met, through development and implementation of plans, that does not result in appreciably different effects than would be expected under Alternative N.

Alternative N includes a requirement for viability that states, in part: “Fish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area” (36 CFR 219.19). Since the promulgation of the 1982 rule, the viability standard has been viewed by the courts as one that continues through the life of the plan, with the Agency demonstrating compliance in disclosing the effects of management, through monitoring and in project analysis. The range of alternatives analyzed in detail includes:

- Alternatives A, Modified A and E that include requirements for maintaining ecological conditions necessary for the persistence of native species, a viability provision that applies to all species of known conservation concern, monitoring of focal species and a consistency requirement that requires that plans be consistent with the rule and projects be consistent with the plan.
- Alternative B that includes provisions to ensure viable populations of native and desirable non-native vertebrate species that is verified through project –level monitoring of MIS.
- Alternative C that does not include a viability provision, but instead includes the NFMA requirement to maintain the diversity of plant and animal species.
- Alternative D that includes requirements to provide for viable populations of native and desired non-native species within the planning area,, and additional monitoring and coordination requirements related to plant and animal species that are not included in other alternatives.
- All alternatives and resulting projects must comply with Section 7 of the Endangered Species Act (16 U.S.C. 1536).

At the programmatic level of analysis of an EIS for a planning rule, it is not possible to discern the differences in effects of alternatives merely based on the difference between alternatives that include project-level requirements and those alternatives that do not include project-level requirements but include rule provisions requiring project consistency with plans. For example:

- Alternative N includes a provision that applies at the project level to: “Conserve soil and water resources and not allow significant or permanent impairment of the productivity of the land.” (§219.27 (a)(1)). By contrast, Alternatives A, Modified A, D, and E include the requirement that plans must include plan components to maintain or restore soils and soil productivity, including guidance to reduce soil erosion and sedimentation, water quality, and water resources in the plan area. Under these alternatives all plans will include plan components to maintain or restore soil and water resources. All projects must then be consistent with these plan components and that consistency disclosed in the project approval document. The differences in effects on soil and water resources as these plans are

implemented are not discernable at this programmatic level based on whether the requirements within the rule apply at the project level or whether they are required to be included in plans and further require that projects be consistent with the plan.

- Alternative N requires that “each alternative shall establish objectives for the maintenance and improvement of habitat for management indicator species selected.” It also includes identifying these species, evaluating them in alternatives, providing objectives for their habitat, and monitoring their population trends. Some respondents were concerned that removing the requirement for MIS monitoring, particularly as it has been implemented at the project-level, may result in a reduction of protection for those particular species. However, plans recently revised under the 1982 provisions have not typically used the same set of MIS as they did in earlier plans (circa 1980s). Alternatives A, Modified A, D, and E all include provisions for maintaining the diversity of all species; providing further requirements for threatened, endangered species, candidate and proposed species, and species of conservation concern; and for monitoring focal species and ecological conditions for ESA listed, candidate and proposed species, and species of conservation concern. As plans are revised, species previously identified as MIS may or may not be identified as focal species under Alternatives A, Modified A, D or E and may or may not be identified as MIS under Alternative N (or Alternative B). The analysis of the effects of those decisions can only be determined at the time of selection.

While Chapter 3 does disclose differences between the alternatives in anticipated effects, the substantive differences in effects result from the requirements of the alternatives as whole rather than on whether the alternative includes requirements that apply at the project level or whether the alternative includes a consistency requirement for ensuring that the requirements of the rule are met.

In summary, the 1982 rule in its entirety was considered but eliminated from detailed study because, it includes the same provisions for land management planning as Alternative B, which is considered in detail. It does not meet the purpose and need for being consistent with current science and the Agency’s expertise and experience gained in more than 30 years of land management planning. Alternative N is within the range of effects of the alternatives analyzed in detail. Furthermore, the programmatic level of analysis of an EIS for a planning rule, it is not possible to discern the differences in effects of alternatives merely based on the difference between alternatives that include project-level requirements and those alternatives that do not include project-level requirements but include rule provisions requiring project consistency with plans.

ALTERNATIVE COMPARISON

The alternatives are compared below in terms of how each meets the purpose and need for action and the significant issues described in Chapter 1. Since Modified Alternative A includes the same concepts and underlying principles as Alternative A and Alternatives D and E consist of the proposed rule (Alternative A) with additional and substitute

direction, the comparison for those alternatives focuses on comparing only the differences between those alternatives and Alternative A, rather than comparing the entire alternative. These are summary conclusions based upon detailed effects discussions for each alternative found in Chapter 3.

Ecosystem Restoration

Alternative A

Plan assessments would determine what plan components and management activities may be appropriate to maintain and restore composition structure, function, and connectivity (ecological integrity) of terrestrial and aquatic ecosystems and watersheds. Plans would include plan components related to restoration activities. As individual plans developed or revised under this alternative are implemented over time, it is expected that restoration activities that alleviate ecosystem stressors by improving composition, structure, function, and connectivity would increase the ecological integrity of terrestrial and aquatic ecosystems within the plan area. Stressors (both those that management can control and those over which management has little control) would continue to affect terrestrial and aquatic ecosystems. However, ecosystems with higher ecological integrity are expected to be more resilient and resistant to these stressors.

As plans revised or developed under this alternative are implemented over time, restoration activities that maintain or restore the ecological integrity of NFS ecosystems are intended to make them ecologically sustainable so that they continue to provide for species diversity, ecosystem services, and multiple uses into the future.

Modified Alternative A

The effects of this alternative are the same as Alternative A.

Alternative B

Plans would continue to include components to restore habitat conditions to support the viability requirements for vertebrate species. Implementation of the plans developed under this alternative would seek to restore conditions for the purpose of maintaining multiple uses and ecosystem services of interest to the public.

Under this alternative, restoration would be driven by policy and direction other than the planning rule (e.g., Endangered Species Act, Clean Water Act, Agency policy, social pressure). As a result, the current trends of increased restoration at both the site and larger landscape scales would likely continue. However, there is greater uncertainty on what would be included in plans related to restoration, resilience, and connectivity and a greater range of potential outcomes under this alternative than under Alternatives A, Modified A, D, and E. Degraded ecosystems on NFS lands would be expected to be restored, but the emphasis on restoration is more uncertain under this alternative than under the other alternatives except for Alternative C.

Because this alternative does not provide any specific guidance regarding restoration, as plans that are revised or developed under this alternative are implemented over time,

restoration activities that maintain or improve the ecological integrity of NFS ecosystems are more likely to vary widely in their approach to ecological sustainability as will their ability to continue to provide for species diversity, ecosystem services, and multiple uses into the future.

Alternative C

Alternative C is intentionally designed to be non-prescriptive. Therefore, the flexibility provided by this alternative could increase efficiency and allow opportunity for units to tailor assessment, revision or amendment, and monitoring to address only the critical or unique needs of the unit. Though, plans would include components that lead to restoration of terrestrial and aquatic systems, inherently there would also be greater uncertainty as to whether or not plan components for restoring ecosystems not specifically required by the alternative would be considered and included in plan revision or amendment than under all other alternatives..

Alternative D

Effects of Alternative D are similar to Alternative A with the following exceptions:

Since this alternative has more extensive requirements for coordination, the development of landscape-level restoration activities would be further informed by coordination with adjacent planning units, other landowners, and land managers engaged in species conservation.

The requirements for increased coordination across the landscape and greater emphasis on restoration activities in key watersheds and riparian areas in this alternative would be expected to decrease the variability among NFS units in maintaining or improving the ecological integrity of ecosystems across the NFS, particularly those elements related to watershed and riparian area conditions.

Alternative E

Effects of Alternative E are similar to Alternative A with the following exceptions:

Under this alternative there would be more evaluation of ecological conditions and possible scenarios during assessment for plan revisions and more monitoring of specific conditions and responses to restoration. The use of signal points required by this alternative could potentially make management more aware and responsive when monitoring results are outside of expected levels. The difficulty of establishing statistically and temporally significant signal points related to restoration, especially where there are insufficient data and where conditions are changing, will increase the complexity of planning. The prescriptive nature of the monitoring requirements could increase the Agency's ability to aggregate and compare data between units or at higher scales, but could also result in collection of data that are not necessarily relevant to the management of individual units or ecological conditions.

Watershed Protection

Alternative A

Watershed Condition

As plans created or revised to meet the requirements of Alternative A are implemented, watershed conditions are expected to improve. The identification of priority watersheds should help to focus efforts beyond the site level to the watershed level so that whole watersheds can move toward improved condition. The degree to which systems can reach a range of desired behaviors will depend on many factors: cause and degree of degradation, irreversibility of some past actions or changes, viability of populations present in the watershed, financial resources, and the timeframe for desired recovery.

Alternative A requires the responsible official to take into account air quality when developing plan components to maintain or restore healthy and resilient terrestrial and aquatic ecosystems and watersheds in the plan area.

Road System

This alternative does not include direction specific to roads. Instead it requires assessment of stressors, consideration of stressors in the development of plan components, and monitoring of measureable changes on the unit related to stressors. With the watershed maintenance and restoration emphasis of Alternative A, coupled with the Forest Service travel management rule and ongoing Agency and USDA policy for watershed protection and restoration, the trend of a reduced road system is expected to continue. Prioritization of where to decommission roads could be based on impacts on watersheds, habitats, or other resources; road density standards; or other factors. There are many variables that will affect the rate of road decommissioning, the specific roads that will be decommissioned, and the resulting effects of those activities, including: funding levels, the number and location of existing roads on any given unit, the need for access to meet multiple use needs, and the existing condition of roads or the watersheds they are in.

Riparian Area Management

Riparian area values such as temperature regulation, large woody debris recruitment, bank stabilization, and others would be expected to improve. The degree to which systems can be restored will depend on many factors: cause and degree of past actions or changes, financial resources, and time frame for desired recovery.

Water Quality

This alternative increases the requirements for plans to include management direction for sustainable water quality and quantity relative to what is currently required. NFS lands are expected to continue to be the source of some of the cleanest water in the Nation and will continue to be the source of a significant percentage of the country's drinking water. As demand for, and stressors on, fresh, available water continue to increase, water quality and quantity both on and off NFS lands will continue to be at risk.

The requirement for a two-tiered monitoring approach provides a sound framework for water quality monitoring. A broad-scale approach to water quality monitoring may help to identify the sources of impacts on water quality as water moves onto, across, and then off of NFS lands. Identifying the sources of water quality impacts could lead to more rapid responses or changes in management to address point and non-point sources of water quality impairment. Land management planning that recognizes the stressors to water quality on and off NFS lands as well as managing for sustainability and watersheds with ecological integrity, and protection of drinking water supplies, provides an effective framework for maintaining water quality and quantity.

Modified Alternative A

The effects of Modified Alternative A are similar to Alternative A with the following exceptions:

Modified Alternative A includes direction for riparian management that is a combination of the requirements of Alternative A and Alternative B. It includes the proactive approach to riparian area management of Alternative A by requiring plan components, including standards or guidelines, to maintain or restore the ecological integrity of riparian areas in the plan area, including plan components to maintain or restore structure, function, composition, and connectivity, taking into account a variety of elements. It also incorporates the mitigation requirements of Alternative B by including that no management practices causing detrimental changes in water temperature or chemical composition, blockages of water courses, or deposits of sediment shall be permitted within riparian areas which seriously and adversely affect water conditions or fish habitat. The requirement of Alternative A for plan components to maintain, protect, and restore riparian areas represents a proactive approach to riparian area management that inherently includes limitation or mitigation of activities that could seriously and adversely affect riparian areas; as a result there is no difference in effects between Alternative A and Modified Alternative A.

Water Quality

Modified Alternative A requires that plans include components for the implementation of national best management practices (BMPs) for water quality management. The use of BMPs for water quality has been demonstrated to mitigate detrimental effects of other management activities on water quality, and the use of BMPs will continue under all alternatives including the no action alternative.

Alternative B

Watershed Condition

While many uses and stressors on NFS watersheds have increased over the time the 1982 rule has been in effect (water withdrawals, rate of climate change, recreation, uncharacteristic wildfire), other uses have decreased (road building, timber harvest, and grazing). See sections on Climate Change and Multiple Uses elsewhere in this chapter. At a national scale, it is difficult to predict what the net effects of these changes will have on

watershed condition in the future. In some cases, depending on existing condition, the results of the trend toward more protective or sustainable management practices on NFS lands that has evolved over the past 30 years may take decades to become apparent.

It is possible, although unlikely, that some plans created or revised under this alternative could take a mitigation approach rather than an active restoration approach. Because of changing climate and ever-increasing stressors, watershed conditions could be expected to deteriorate under a strictly mitigation approach, particularly where natural disturbance patterns are absent. Watersheds currently in poor condition may remain in poor condition or might degrade further.

Road System

This alternative includes direction on the construction and closure of roads, however these requirements are included in the NFMA and apply to all alternatives. Alternative B, coupled with the Forest Service travel management rule and ongoing Agency and USDA policy for watershed protection and restoration, the trend of a reduced road system is expected to continue for some time. However, since this alternative does not include a watershed restoration emphasis, plan content related to the NFS road system and road management decisions are expected to be driven by rules, regulations, and policy other than the planning rule. There are many variables that will affect the rate of road decommissioning, the specific roads that will be decommissioned, and the resulting effects of those activities, including: funding levels, the number and location of existing roads on any given unit, changes in policy, the need for access to meet multiple use needs, and the existing condition of roads or the watersheds they are in. A road system that meets access needs and is within the financial capability of the national forests and grasslands to be properly maintained should result in fewer impacts (sedimentation, aquatic organism passage, disruption of overland flows, etc.) of roads on aquatic and riparian resources than is being experienced today.

Riparian Area Management

In many instances, especially when not coupled with plan components for active restoration of riparian areas, the 1982 provisions implement a 100-foot “no management” buffer. In the absence of natural disturbance, “No management” can have unintended adverse consequences. In some circumstances, management activities that mimic natural disturbance are necessary to prevent a decline in riparian health.

It is possible that some plans created or revised under this alternative could take a strictly mitigation approach rather than an active restoration approach to riparian management. In times of changing climate, fire suppression, and ever-increasing stressors, riparian conditions may continue to decline under a strictly mitigation approach.

The Agency’s increased emphasis on improving watershed conditions and assessing changing conditions can be expected to continue, and future plans could reflect that emphasis; however, there is a greater degree of uncertainty of that under this alternative than under Alternatives A, Modified A, D, or E. Alternative B focuses on preventing

and/or mitigating adverse effects of management actions on riparian area values, but it does not emphasize restoration or maintenance of these areas.

Water Quality

The existing condition of water resources on NFS lands is a result of management that has occurred prior to the inception of land management planning and while the 1982 planning provisions have been in place. NFS lands are expected to continue to be the source of some of the cleanest water in the Nation and will continue to be the source of a significant percentage of the country's drinking water. However many streams on NFS lands do not meet state water quality standards. As demand for, and stressors on, fresh, available water continue to increase, water quality and quantity both on and off NFS lands will continue to be at risk. The use of BMPs for water quality has been demonstrated to mitigate detrimental effects of other management activities on water quality, and the use of BMPs will continue under this alternative. The requirements of this alternative neither provide for nor preclude a proactive or adaptive framework for managing for sustainable water resources.

Alternative C

Alternative C provides the least number of specific plan requirements for management of watershed condition, road systems, riparian management, and water quality of all alternatives analyzed in detail. As a result there is greater uncertainty of what the effects on plan content and the planning process would be and in turn, the uncertainty as to potential effects on resources over time is magnified. Expectations at the plan level range from an expedited planning process producing very streamlined plans to a planning process and plans that are similar to those plans that have been recently revised using the 1982 planning provisions. At best some general statements can be made in relation to the following indicators.

The effects of Alternative C would be similar to Alternative B with the following exceptions:

Watershed Condition

Even though this alternative includes very few requirements related to watershed condition, it is not expected that plans created, revised, or amended under this alternative would include less emphasis on watershed health or condition than those revised under Alternative B. It is reasonable to expect that plans would be written consistent with current Agency policy for improving watershed condition, but that they would be highly variable in the degree to which they include guidance for protection or restoration of watersheds.

Road System

This alternative contains no direction related to roads. There are no requirements for assessment, development, or monitoring of plan components to address watershed structure, composition, and function. Under this alternative there is more uncertainty than under other alternatives as to what guidance would be included in plans related to the

impacts of roads on watersheds and water resources. To some extent, the reduced requirements for public involvement, assessment, and monitoring under this alternative might increase the risk that the impacts of roads are not considered in developing the need to change the plan or are not analyzed as an issue in the environmental impact statement for plan revision even where impacts are occurring.

Riparian Area Management

This alternative includes requirements for mitigation specific to timber production activities such that protection would be provided for streams, streambanks, shorelines, lakes, wetlands, and other bodies of water. No other protection is afforded to riparian areas (§ 219.11).

Alternative D

The effects of Alternative D are similar to Alternative A with the following exceptions:

Watershed Condition

Some of the requirements of Alternative D might be more suited to certain geographic areas (e.g., the Pacific Northwest) than others (e.g., the eastern continental United States) largely as a result of the mixed land ownerships and smaller NFS unit size in the east. In locations where these requirements are appropriate, they would likely lead to improved watershed conditions over time. However, the lack of flexibility could result in plans or planning processes that less effectively address local watershed issues.

Road System

This alternative has the most requirements specific to roads of all of the alternatives. This alternative requires that road removal or remediation in riparian conservation areas and key watersheds be considered a top restoration priority. Setting restoration priorities for all units does not take into account the high variability of conditions and stressors across NFS lands. Also, it does not take into account changing conditions. While road remediation in riparian areas could be the highest priority in some places or at some times, it might not be for all units and across the entire life of a plan. For example, it might be more important to shift restoration focus to control of a new occurrence of invasive species before it becomes pervasive in a watershed, rather than removing roads in riparian areas.

Under this alternative, changing restoration priority may require a plan amendment. There is less ability to react quickly to changing conditions in this alternative relative to other alternatives. The delayed response time may mean that other resource needs may be unaddressed for longer times. The requirements of this alternative may result in plans that effectively address resource concerns in some areas and may hamper the ability to address priority resource concerns in other

It also requires that plans include a maximum road density standard. A maximum road density standard may be an effective requirement for improving watershed conditions on some units, but may not be for all units, particularly in fragmented ownerships or where

many of the roads are not NFS roads. There is also disagreement in the science as to whether road density is a reliable indicator of road impacts.

Riparian Area Management

All plans would include standards and guidelines that require management activities within riparian areas be primarily for restoration. Those that are not for restoration (such as construction of new facilities such as roads, trails, boat landings, etc.) would be designed so as not to impair riparian function. As plans developed under this alternative are implemented, the condition of riparian areas would be expected to improve, and the values and functions they provide in terms of habitat and water quality would be expected to increase. The prescriptive nature of this alternative might not allow the flexibility to develop plans that can best address resource concerns of a given unit and might not be efficient or effective across highly variable systems. Establishing national restoration priorities that must be included in every plan could lead to plans that are rapidly outdated and might focus staff resources on amending plans rather than on meeting the restoration needs of the unit. Identification of climate change vulnerability would be expected to result in the development of plan components designed to protect areas especially sensitive to disturbance and changing conditions.

As these plans are implemented, riparian areas that are currently in good condition would be expected to be maintained, and riparian areas in degraded conditions would be expected to improve at a faster rate than under other alternatives.

Water Quality

This alternative requires that sediment be managed within the natural range of variation. While an understanding of the natural range of variability in sediment regime could provide important context for sediment reduction activities, standards to restore sediment regimes to a natural range of variability might be impractical because they require information on historical flow regimes that might not be applicable to future conditions. Standards or guidelines intended to return conditions to within the historical range of variation may be inappropriate in the face of changing climates. Realignment with current process and dynamics may be more effective in facilitating recovery and adaptation to changing climate than restoration to historical pre-disturbance conditions.

The added requirements also might not be appropriate for all NFS units, will be data intensive, and might constrain or delay other management actions that could address known sediment problems.

Alternative E

The effects of Alternative E are similar to Alternative A with the following exceptions:

Alternative E includes specific requirements for a public participation process beyond those required by Alternative A. Additional requirements for outreach to traditionally underserved communities (§ 219.4) might result in plans that reflect a broader spectrum of public values concerning watershed condition, riparian areas, and water quality, but it is not clear that collaboration processes required by this alternative would necessarily

result in a greater degree of inclusion than Alternatives A, Modified A, or D. Monitoring plans, including signal points, developed under this alternative could provide a more effective mechanism for adaptive management than current monitoring plans, although the additional requirements might not be efficient or effective for all units. Resources shifted toward monitoring could be at the expense of other management activities. The process for public involvement would be more consistent across units and could result in plans that reflect a broader spectrum of public values concerning watershed condition, riparian areas, and water quality than currently occurs.

Diversity of Plant and Animal Communities

Alternative A

Maintaining Species Diversity

All plans would incorporate a complementary coarse-filter/fine-filter strategy to maintain biological diversity within the plan area. This approach is more scientifically credible and supportable in maintaining biological diversity than the approach provided under the 1982 planning rule; and it is intended to provide sufficient ecological conditions to maintain all native species in a plan area, rather than focusing on vertebrates only. As plans are implemented under these provisions, NFS lands are expected to more consistently provide the ecological conditions necessary to maintain the diversity of plant and animal communities and the persistence of native species.

Plans would emphasize ecological restoration and connectivity and, where necessary, provide species-specific plan components focused on at-risk species (§ 219.9). As these plans are implemented, ecological conditions for many federally listed species, species proposed and candidates for listing, and species of conservation concern are expected to improve within and among plan areas.

Planning would respond to the need to coordinate conservation measures with other land managers for species of conservation concern whose range and long-term viability are associated with lands beyond the plan area. This coordination should lead to more effective collaborative approaches to addressing the rangewide concerns of these species. Planning would actively engage the public in a collaborative, all-lands approach to maintaining biological diversity.

This approach provides a framework for recovering threatened and endangered species, preventing the listing of candidates to Federal listing, and conserving other species of conservation concern that is well supported in the scientific literature.

Managing Ecological (Habitat) Conditions

Planning would identify and evaluate information relevant to the requirements for species diversity within the plan area and would incorporate specific plan components that focus management actions on maintaining and restoring ecological conditions that maintain or improve the ecological integrity of these ecosystems. Over time, as management activities are implemented to achieve the desired ecological conditions, habitat quantity is

expected to increase and habitat quality is expected to improve for most native species across the NFS.

Plans would include specific restoration direction for riparian areas where appropriate. The implementation of these measures is expected to result in improved streamside, wetland, lakeside, and aquatic habitats, especially for aquatic and riparian species.

Monitoring to Assess Effectiveness

Plans would include ecological monitoring elements (ecological conditions, ecosystem characteristics, and focal species) that would be more effective and efficient at assessing the diversity of plant and animal communities and persistence of native species within the plan area than the management indicator species monitoring required by the 1982 planning rule

This alternative requires a two-tiered approach to monitoring, emphasizes collaboration and coordination, and increase the role of science over that required under the 1982 planning rule. This would ensure gathering, assessing, and incorporating information beyond national forest and grassland boundaries, which should lead to more effective approaches to the conservation of all species within the region of a plan than the approach taken under the 1982 rule.

Modified Alternative A

The effects of this alternative are the same as Alternative A with the following exceptions:

The clarifications made to the language of Alternative A, as well as the additional detail provided, may result in more consistent implementation of the rule than under Alternative A.

The requirements for ecosystem diversity were modified to specifically underscore the importance of maintaining or restoring the diversity of ecosystems throughout the plan area and the key characteristics associated with terrestrial and aquatic ecosystem elements (§ 219.9).

The regional forester will identify the species of conservation concern. Identification of species of conservation concern at this level should increase efficiency in planning because many of these species may be wide-ranging and may potentially identified as species of conservation concern across several units. Having the regional forester identify species of conservation concern may also increase consistency in the development of criteria for selecting these species.

Plans would require a monitoring element that specifically addresses the status of a select set of ecological conditions that contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species, and maintain a viable population of each species of conservation concern (§ 219.12).

Alternative B

Maintaining Species Diversity

Plans would rely primarily on selected MIS as a way to assess the effects of management activities on other species or habitats, and would focus on managing for their habitat conditions and monitoring their population trends (§ 219.19). Because the species viability requirement is limited to vertebrates, plans may not fully address the life requirements of invertebrates and plants. As plans are developed and implemented under these provisions, NFS lands are expected to vary in the extent to which they provide the ecological conditions necessary to maintain the diversity of plant and animal communities and the persistence of native species.

It would be expected that under this alternative, plans would continue to provide standards and guidelines for fish and wildlife conservation, which has benefitted these resources in the past.

This alternative would allow more discretion to the responsible official with respect to collaborating and coordinating with other agencies and entities, and to taking a broader approach to gathering, assessing, and using other relevant information than under all other alternatives with the exception of Alternative C. Such broad discretion could result in inconsistency from unit to unit in how this information is used when addressing species viability issues that extend beyond national forest and grassland boundaries and could lead to less effective approaches to the conservation of all species within the region of a plan.

Managing Ecological (Habitat) Conditions

Plans would continue to provide management direction for habitat management based on the needs of selected MIS. Many MIS are not biologically appropriate for representing other habitat associates, and do not explicitly address key ecosystem characteristics (composition, structure, function, and landscape connectivity) needed to maintain ecological conditions for all native species. As plans are developed and implemented under these provisions, the approaches to habitat management on NFS lands are expected to continue to vary among plan areas.

Monitoring to Assess Effectiveness

Plans would continue to rely on establishing population trends of selected MIS as a way to assess vertebrate species viability. This is expected to continue the inconsistency in a forest or grassland's ability to assess the viability of all native species within the plan area.

Alternative C

Maintaining Species Diversity

Under this alternative, there would be considerable discretion for providing for the diversity of plant and animal communities because there are no specific requirements for

how this NFMA requirement is to be met, and it would be relatively open to the discretion of the responsible official. Plans developed and implemented under this alternative would be expected to vary considerably in their approaches to providing for diversity of plant and animal communities, which could lead to greater uncertainty regarding species diversity and persistence on all NFS lands.

Managing Ecological (Habitat) Conditions

Plans developed and implemented under these provisions are expected to vary considerably across the NFS with regard to habitat management and the ability for plan areas to provide the ecological conditions necessary to maintain the diversity of plant and animal communities and the persistence of native species.

Forest Service directives and policy would provide primary direction on how plans are to be developed or revised when it comes to providing diversity of plant and animal communities and the persistence of native species.

Monitoring to Assess Effectiveness

There would be considerable discretion on what would be in monitoring approaches because this alternative has no specific monitoring requirements. Plans developed and implemented under these provisions are expected to vary considerably in their monitoring approaches for assessing the effectiveness of plan components necessary to provide the ecological conditions to maintain the diversity of plant and animal communities. Planning would allow more discretion to the responsible official with respect to collaborating and coordinating with other agencies and entities, and to taking a broader approach to gathering, assessing and utilizing other relevant information. This discretion could lead to inconsistent use of this information when addressing species viability issues that extend beyond national forest and grassland boundaries and could lead to less effective approaches to the conservation of all species within the region of a plan.

Alternative D

The effects of Alternative D are similar to Alternative A with the following exceptions:

Maintaining Species Diversity

This alternative includes more explicit direction with respect to maintaining species diversity; planning would require close coordination with other land managers for species whose range and long-term viability are associated with lands beyond the plan area. This coordination should lead to more effective, collaborative approaches to addressing the rangewide concerns of these species than under other alternatives.

The explicit requirements related to ecological connectivity would further reduce consistency in addressing this important aspect to maintaining species diversity.

Managing Ecological (Habitat) Conditions

Plans would include requirements specific to watershed and riparian protection and restoration that would be expected to result in greater emphasis placed on ecosystem

restoration within priority watersheds. Over time, as plans are implemented, the resulting plan areas are expected to yield habitat benefits, especially for aquatic and riparian species. Planning would include specific requirements for assessment of ecosystem diversity characteristics, which would be expected to result in greater assurances that an effective coarse-filter for maintaining biological diversity would be designed. Over time, as management activities are implemented to achieve the desired ecological conditions, habitat quantity is expected to increase and habitat quality is expected to improve for most native species across the NFS.

Alternative E

The effects of Alternative D are similar to Alternative A with the following exceptions:

Maintaining Species Diversity

Planning would include specific requirements for collaboration and coordination that would be expected to result in greater assurances that responsible officials would gather, assess, and incorporate information from beyond national forest and grassland boundaries into the development or revision of a plan. These procedures and processes specifically emphasize gathering, assessing, and incorporating information beyond national forest and grassland boundaries, which should lead to more effective approaches to the conservation of all species within the region of a plan.

Monitoring to Assess Effectiveness

This alternative includes more specific requirement related to monitoring. If the Agency were able to effectively and adequately implement these requirements in a timely manner, it could be better equipped to foresee potential detrimental changes to plan area ecosystem characteristics that might have an adverse effect on species diversity and ecosystem integrity. However, the large number of specified monitoring questions under this alternative could reduce a unit's opportunity to address other biological or ecological questions unique to its plan area.

Climate Change

Alternative A

Under Alternative A, plans would more consistently identify where and how the structure, composition, and function of ecosystems are maintained or restored through the desired conditions, objectives, standards, and other plan components, taking into account the best scientific information on where and how climate change would affect ecological conditions than they do currently. It is expected that through monitoring (unit level and broad scale) and assessments, shifts in ecological units or changes in ecological states influenced by climate change would be detected sooner than under current plans.

It is expected that over time the planning framework in Alternative A will result in greater recognition of the uncertainties of climate change and opportunities for a more rapid response to climate change, compared to the current planning rule. This would result in better management of resources in the face of climate change.

The unit level and broader scale monitoring strategy would require close coordination and additional time among the various branches of the Agency to focus on this effort. There are additional challenges for developing appropriate protocols and use and management of data collected at different scales. Additional time would be required to work with managers, scientists, and the public about which monitoring questions and indicators would be addressed and at what scale (the unit or broader scale).

Modified Alternative A

The effects of this alternative are the same as Alternative A.

Alternative B

Alternative B does not include requirements related to climate change. Plans developed under this rule would be more inconsistent in how and to what extent they address threats to ecological integrity and social and economic conditions influenced by climate change than all other alternatives with the exception of Alternative C.

This alternative does not have a planning framework designed for adaptive management, compared with Alternative A. It is possible to design an adaptive management approach under this rule, and some recent plans have done so. Therefore, plans would be expected to vary in whether or not adaptive management approaches to climate change would be incorporated into planning processes.

Plans initially created under the 1982 rule generally contained analysis only about the NFS unit, without considering information beyond unit boundaries. Since information technology has changed in the past 30 years, broader scale information is more readily available and most recent plans have considered such information. Yet, without a systematic approach to assessment and monitoring, there is expected to be a reduced or inconsistent rate of increased knowledge about the influences of climate change on the unit, which would decrease the opportunities for a unit's ability to address uncertainties related to climate change.

Alternative C

Climate change threats to ecological integrity and social and economic conditions could potentially be addressed through the requirements in this alternative. However, without more explicit requirements, the degree to which these threats would be addressed is expected to vary across NFS units.

Alternative D

The effects of this alternative are similar to Alternative A with the following exceptions:

Alternative D requires watershed-scale assessments that include an assessment of climate change vulnerability. These assessments would use the best available scientific information to determine current and historical ecological conditions and trends including global climate change, ecological conditions required to support viable populations, and assessment of current and future viability of focal species.

This alternative includes requirements for monitoring and assessment that could improve a unit's ability to address uncertainties surrounding climate change. The coordination requirements of this alternative would have the potential to also reduce uncertainty through sharing of information with other agencies.

With additional information about climate change, opportunities to detect and respond to changing social and economic conditions would be greater than under Alternative A.

Alternative E

The effects of this alternative are similar to Alternative A with the following exceptions:

This alternative includes additional monitoring questions or indicators that would be useful in evaluating many of the effects of climate change. Each unit's monitoring program would require monitoring of the status of key ecological conditions affecting species of conservation concern and ecosystem diversity within each plan area, focusing on threats and stressors that might affect ecological sustainability such as management activities, invasive species, or climate change. There would also be increased evaluation of climate change in the assessment, which would further address threats to ecological integrity. This attention to climate change should lead to a greater recognition of the uncertainties and influences of climate change through monitoring and assessment and more opportunities for a more rapid response to climate change than Alternative A.

Additional monitoring requirements could lengthen the planning process. Extra time will be required to establish signal points, or thresholds that would trigger plan amendments before a plan could be approved.

Multiple Uses

Alternative A

Outdoor Recreation

To meet the requirements in Alternative A for sustainable recreation, it is expected that plans would consistently include components based on the sustainable recreation framework (<http://fsweb.wo.fs.fed.us/rhwr/Framework.pdf>) (USDA Forest Service 2010f), which provides a comprehensive planning approach for recreation. Restoring and adapting recreation settings that have been affected by declining ecosystem health, wildfire, and inappropriate use would not only benefit recreation users and businesses associated with recreation use, but would also contribute to the other multiple uses and ecosystem services that provide benefits to communities.

Range

Plans would include components to maintain or restore the structure, composition, function, and connectivity of healthy and resilient terrestrial and aquatic ecosystems and watersheds in the plan area. As plans are revised and grazing authorizations are made consistent with revised plans, rangelands would be expected to be managed to maintain or restore ecological conditions. Where restoration is needed and livestock grazing is

identified as a stressor, allotment management plans would be expected to be modified (e.g., through reductions in numbers, changes in season of use, or additional improvements). However, such decisions and their attendant effects would be analyzed at the site-specific, project level.

Timber

Alternative A includes an emphasis on ecosystem sustainability. Plans would include components to maintain or restore the structure, composition, function, and connectivity of healthy and resilient terrestrial and aquatic ecosystems and watersheds in the plan area. These plan components are consistent with the trend in forest management objectives, which have evolved to include ecosystem restoration and protection, hazardous fuels reduction, and the maintenance of healthy forests. Consequently, current trends in the NFS timber program would be expected to continue as described in the Affected Environment section for timber in Chapter 3.

Modified Alternative A

The effects of Modified Alternative A are similar to the effects of Alternative A.

Alternative B

Outdoor Recreation

Land management plans would continue to reflect the current recreation planning and monitoring procedures and tools described in the Affected Environment section. Since there would be no requirements for addressing recreation in assessments, planning could vary from unit to unit in analysis of distinctive roles and contributions to recreation opportunities within the context of the broader landscape. The use of the national visitor use monitoring system would be expected to continue, thereby assuring consistent recreation monitoring across NFS units. Sustainable recreation is not explicitly defined in this alternative. As plans are implemented, application of sustainable recreation concepts would be driven by Agency guidance, such as the sustainable recreation framework, rather than by regulation.

Planning under Alternative B would continue to include the need to identify recreation opportunities on NFS lands and their ability to meet present and future recreation demands. However, with less emphasis placed on public involvement during all phases of planning, this alternative is expected to result in fewer avenues for considering and incorporating the broad range of values affecting economic sectors and social segments within rural and/or amenity-dependent communities than under all other alternatives with the exception of Alternative C..

Range

Planning under the 1982 procedures would continue to include identifying the suitability of NFS lands for producing forage for grazing animals. The trends of reductions in authorized numbers of livestock would be expected to continue as described in the Affected Environment section for Range in Chapter 3.

Timber

The trend in public and Agency values toward restoring and maintaining healthy ecological conditions would be expected to supplant the absence of prescriptive direction regarding restoration in this alternative. Consequently, plans are expected to focus more on outcomes than on outputs. That is, more effort would be spent on defining desired ecological conditions and probable methods to achieve them than on maximizing the economic benefits of commodity production. Current forest management objectives include ecosystem restoration and protection, research and product development, fire hazard reduction, and maintaining healthy forests. Maintaining healthy forests contributes to wildlife habitat, watershed condition, and recreational values. Consequently, the current forest management program and attendant timber harvest level would not be expected to vary from that which is described in the Affected Environment section for timber in Chapter 3. The trend toward reduced levels of timber harvest levels has occurred under the 1982 rule. To the extent that a planning rule has influenced that trend, it would be expected to continue.

Alternative C

The effects of Alternative C are similar to the effects of Alternative B with the following exceptions:

Outdoor Recreation

Absent the more detailed requirements in any of the other alternatives, there would be less assurance of consistency in recreation planning across NFS units and less assurance that all public recreation needs and values would be considered.

Range

It is expected that some practices related to range management requirements in current procedures would be followed simply because they would inform the development of desired conditions, objectives, standards, and guidelines. For example, some type of assessment of range condition and trend would inform a determination about the need for change in any of these plan components. However, there would be a low probability of consistency across NFS units in assessment of the rangeland resource, plan components to guide its management, or monitoring.

Timber

Timber direction in plans would be expected to not exceed the minimum NFMA requirements to identify the suitability of lands for timber production, the expected timber harvest levels, the planned timber sale program, and the proportion of probable methods of forest vegetation management practices expected to be used, as required by NFMA. However, the trend in public and Agency values toward restoring and maintaining healthy ecological conditions would be expected to supplant the absence of prescriptive plan direction.

Alternative D

The effects of Alternative D would be similar to Alternative A with the following exceptions:

Outdoor Recreation

Plans would include specific standards and guidelines for watershed and riparian protection and prescriptive sustainability and diversity requirements. Plans would restrict management activities within riparian areas to be primarily for restoration. Plans would require that other activities in riparian areas be designed to minimize impacts on their ecological function. Some existing recreation facilities such as trails, trailheads, and campgrounds located in riparian areas might not be compatible with these specific requirements. To be consistent with a land management plan under this alternative, existing facilities could be subject to a range of mitigation measures such as upsizing culverts on roads, hardening recreation sites with gravel, decommissioning roads, and moving recreation sites outside of riparian areas. Future recreation facilities would be expected to either be located outside of riparian areas or include mitigation features to protect riparian functions. With an emphasis on reducing road densities, motorized access could be reduced below current levels or those that could be expected under any of the other alternatives. The combined restrictions on activities in riparian areas and emphasis on reducing road densities could shift the mix of recreation opportunities away from developed and motorized in some areas to more undeveloped and non-motorized forms of recreation. However, such resource conflicts can be identified only at the unit planning level.

Range

Plans would limit management activities within riparian conservation areas to those that are primarily for restoration. Except where grazing was used as a tool for restoration, allotment management plans would be expected to be modified (e.g., numbers, season of use, or additional investments in livestock water sources). This alternative could require significant investment in exclosure of riparian areas if grazing were to continue on NFS lands.

Timber

Plans would restrict management activities within riparian areas to be primarily for restoration. These plan components would not be expected to change the current program levels, although there could be a trend toward harvest of smaller diameter material. Plan components would be expected to focus unit forest management program objectives toward restoration and maintenance of riparian areas, watersheds, and habitat connectivity.

Alternative E

The effects of Alternative E would be the same as Alternative A with the following exceptions:

Outdoor Recreation

Under Alternative E more formal public participation could result in participation of a broad spectrum of recreation users, and decisions could, therefore, reflect a fuller range of opportunities. Alternative E would also require specific monitoring and evaluation of recreation-related conditions and trends and user satisfaction which could lead to better information on which to base decisions

Range

The additional monitoring elements required under this alternative would be expected to provide the responsible official with information to respond to changes in rangeland ecosystem-related trends and conditions more rapidly than under Alternative A. These more specific monitoring requirements afford greater assurance than Alternative A that rangeland monitoring would be conducted and that appropriate plan amendments would be made in a timely manner.

Efficiency and Effectiveness

Alternative A

The analysis assumes an even flow of revision schedule with eight management units starting plan revision annually, so that approximately 120 management units will at least initiate plan revision over the next 15 years. The analysis also assumed each management unit would take 3 to 4 years to revise a plan under Alternative A and Modified Alternative A and 5 years under Alternative B. Given these assumptions, over a 15 year period, there would be approximately 104 plan revisions completed under Modified Alternative A in contrast to an estimated 88 plans revised under current rule procedures (Alternative B), a net increase of 16 plans revised under Modified Alternative A and Alternative A.

Although planning costs for Alternatives A and Modified A are not projected to be substantially less than Alternative B, long-term gains in planning efficiency are expected as a result of procedural changes and reallocation of effort (and costs) across key planning activities. Planning activities such as analyzing and revising plan components are anticipated to be streamlined as resources are shifted to other activities such as collaboration, monitoring, and amendments. New requirements to consider diversity and sustainability in monitoring, assessments, and plan components are expected to improve the cost-effectiveness of project-level analysis and decisionmaking, recognizing that project-level costs are not included in the analysis of planning costs.

Implementation of this rule would cost the Agency an estimated \$102.5 million annually (\$1.5 million less than the current rule (Alternative B)). Considering and referencing existing assessments completed by States and other entities would improve planning efficiency by leveraging unit staff resources with those of other agencies. Compared with current rule procedures, more effort would be dedicated to collaboration, assessments, and monitoring. This shift in staff resources, along with requirements for specific monitoring questions and biennial evaluations, would contribute to the effectiveness of plans by helping plans remain current. As plans are implemented, their currency would

ensure project and activity proposals are guided by the latest science, contemporary economic and social values, and current conditions on the landscape.

Modified Alternative A

The effects of this alternative are similar to the effects of Alternative A with the following exceptions:

Implementation of this rule would cost the Agency an estimated \$97.7 million annually (approximately \$6 million less than the current rule (Alternative B)). Agency planning costs are estimated to be slightly lower compared to Alternatives A (\$102.5 million annually) and B (\$104 million annually); however, due to relatively small differences in estimated costs, combined with uncertainty associated with costing assumptions, the estimated Agency costs are not projected to be substantially different between the Modified Alternative A and Alternatives A and B (i.e., costs are similar for all three alternatives). Changes in rule language under Modified Alternative A will clarify the intent and enhance the gains in planning efficiency of Alternative A. As a consequence of the changes under Modified Alternative A, plans are better able to guide management of NFS lands to sustain multiple uses of renewable resources in perpetuity while maintaining the long-term health and productivity of the land to meet the objectives of MUSYA.

Alternative B

Implementation of this rule would continue to cost the Agency an estimated \$104 million annually. This alternative represents current plan development, revision, and amendment procedures that have been found to make for an unduly complex, costly, lengthy, and cumbersome planning process. Some recently revised plans incorporate concepts, if not actual requirements, of Alternative A even though not required. Under Alternative B, this trend is expected to continue, albeit voluntarily. Consequently, there would be no assurance that plans would exhibit content beyond that which is required in the current rule procedures or that there would be consistency across NFS units.

Alternative C

Implementation of this rule would cost the Agency an estimated \$80.2 million annually (\$23.8 million less than the current rule (Alternative B)). This alternative represents the minimum requirements of NFMA and would be expected to result in the widest variation among plans across NFS units. Consequently, the efficiency and effectiveness of this alternative would be expected to range widely from one unit to the next. This alternative does not require a landscape perspective nor an adaptive a framework as found in Alternative A which can facilitate adaptation to new information. Consequently, planning efficiency would be expected to decrease because of the inability of management units to revise and maintain management plans that adequately address uncertainty and reflect current knowledge about social, economic, and ecological risks, stressors, and contingencies.

Alternative D

The effects of this alternative would be similar to Alternative A with the following exception:

Implementation of this rule would cost the Agency an estimated \$116.0 million annually (\$11.9 million more than the current rule (Alternative B)).

Alternative E

Implementation of this rule would cost the Agency an estimated \$134.4 million annually (\$30.3 million more than the current rule (Alternative B)). Requirements to identify possible scenarios in assessments would have short-term cost increases with possible long-term gains in efficiency. Additional requirements regarding coordination in the assessment and monitoring would increase initial costs. However, consistent coordination might also result in more cost-effective long-term planning efforts to meet the viability objectives of this alternative. The requirements of this alternative for standardized collaboration methods might work well for some units, while other units might find that some required steps are not relevant to their local public involvement needs. A standardized process could also reduce the effectiveness of collaboration if people lose ownership in the process and its outcomes and become less willing to work collaboratively during subsequent planning efforts. The effects of this alternative would otherwise be similar to Alternative A.

Transparency and Collaboration

Alternative A

Responsible officials would continue to engage state and local governments, Tribes, private landowners, other Federal agencies, and the public at large, but additionally would encourage participation by youth, low-income, and minority populations, who have traditionally been underrepresented in the planning process; therefore, it would be expected that the process would identify all the social, economic, or ecological factors of importance in the plan area. The forest or grassland supervisor would be the responsible official, thereby affording greater opportunity for people to interact directly with the decisionmaker than under current rule procedures. The current option to use either a post-decisional administrative appeal process or pre-decisional objection would be replaced with a pre-decisional objection process as the sole means to administratively challenge a decision, resulting in more consistency than currently found in the administrative review process across all NFS units. Documents such as assessments, plans, monitoring reports, environmental analyses, and decision documents would be readily available to the public through posting on the Internet and other means.

Modified Alternative A

The effects of this alternative are the same as for Alternative A.

Alternative B

The current trend of more transparent and collaborative public involvement in planning efforts would be expected to continue. Units would continue to engage private landowners, Federal agencies, State and local governments, and Tribes in the planning process. People not traditionally involved in the planning process might be overlooked, and it is possible that the process would not identify all the social, economic, or ecological factors of importance in the plan area. Responsible officials would have considerable flexibility to design a collaborative process. Increased flexibility would allow responsible officials to change processes as best practices evolve, and to design collaborative processes that address the unique constituency of the unit. However, greater flexibility provides less assurance that all units would follow best practices. The regional forester, as responsible official, would not be expected to have as in-depth of an understanding of local concerns but would be expected to be aware of regional and national issues.

Alternative C

The current trend of more transparent and collaborative public involvement efforts would be expected to continue. Units would continue to engage private landowners, Federal agencies, State and local governments, and Tribes in the planning process. Responsible officials would have considerable flexibility to design a collaborative process. Increased flexibility would allow responsible officials to change processes as best practices evolve, and to design collaborative processes that address the unique constituency of the unit. However, greater flexibility provides less assurance that all units would follow best practices. The forest or grassland supervisor would be the responsible official, thereby affording greater opportunity for people to interact directly with the decisionmaker than under current rule procedures. The current option to use either a post-decisional administrative appeal process or pre-decisional objection would be replaced with a pre-decisional objection process as the sole means to administratively challenge a decision. This would result in more consistency than currently found in the administrative review process across all NFS units.

Alternative D

Alternative D contains the same requirements for collaboration and transparency as Alternative A and would, therefore, have the same effects with respect to those requirements.

Alternative E

The public involvement process for plan development or revision would be standardized, potentially resulting in more stakeholders being identified who could add additional value to the planning process. The process might work well for some units, while other units might find that some required steps are not relevant to their local public involvement needs. A standardized process could reduce public and Agency ownership in the process and its outcomes, disguise a lack of public and Agency commitment to the process, and reduce public and Agency willingness to work collaboratively during subsequent

planning efforts. The effects of this alternative would otherwise be similar to Alternative A.

Coordination and Cooperation Beyond NFS Boundaries

Alternative A

The responsible official would consider all lands and look across boundaries throughout the assessment, plan development/revision, and monitoring phases of the planning process. The responsible official would engage other agencies, governments, and Tribes earlier in the process than currently practiced, inviting them to participate in the assessment process and the development of the proposed plan, plan amendment, or plan revision. Units would be expected to leverage their resources and knowledge with those of other agencies to gain efficiency in planning and future implementation of their plans.

Modified Alternative A

The effects of Modified Alternative A would be the same as Alternative A.

Alternative B

The responsible official would continue to coordinate planning activities with the planning efforts of other Federal agencies, State and local governments, and Tribes, and coordinate with adjacent private landowners. The general trend in the planning process for more coordination across all lands would continue, but there would be considerable variation across units in the amount of coordination and what specific plan content would result.

Alternative C

The general trend for more interagency coordination in the planning process would be expected to continue, but inconsistently across the NFS because much of it would be voluntary. Formal assessment or monitoring of lands outside of NFS boundaries would not be expected.

Alternative D

The effects of this alternative would be similar to Alternative A with the following exceptions:

There would be substantially more coordination with other agencies than would occur under Alternative A or current rule procedures for purposes such as restoring watershed connectivity, reducing road density, and maintaining viable populations across jurisdictional boundaries. Planning would follow a more prescriptive approach to interagency coordination than Alternative A concerning issues of ecological conditions and species viability across the landscape.

Alternative E

Several items related to lands outside of NFS boundaries would be monitored; however, coordination and cooperation beyond NFS boundaries would be generally the same as in Alternative A.

