United States
Department of
Agriculture

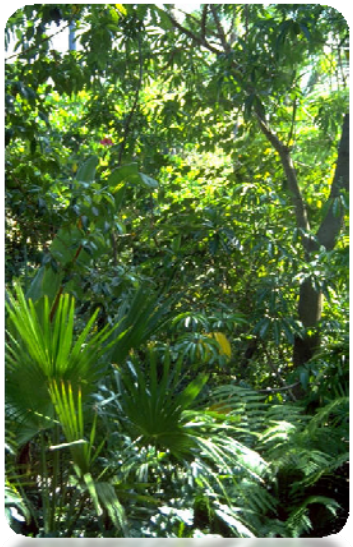
Forest Service

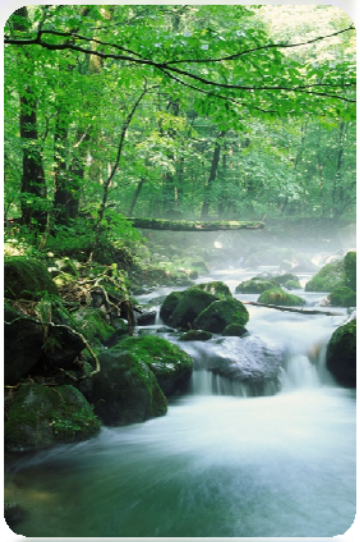
January 2012

FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

National Forest System Land Management Planning

UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE





National Forest System Land Management Planning

Final Programmatic Environmental Impact Statement

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Abstract: The U.S. Department of Agriculture (USDA) Forest Service (the Agency) is proposing a new rule at 36 CFR part 219 to guide development, revision, and amendment of land management plans for units of the National Forest System. The Agency considered six alternatives in detail, including the proposed action. The proposed action and alternatives were developed through a nationwide collaborative effort. Alternative A is the proposed action. Modified Alternative A is Alternative A with changes made based on public comment, tribal consultation, and consultation with the U.S Fish and Wildlife Service and National Oceanic and Atmospheric Administration (NOAA) Fisheries. Modified Alternative A is the preferred alternative. Alternative B is the no-action alternative, consisting of the planning provisions of the 1982 planning rule as allowed by the transition language in the current planning rule. Alternative C would require the land management planning process and resulting plans to be limited to the minimum requirements of the National Forest Management Act with the addition of minimal requirements to meet the purpose and need for a new planning rule. Alternative D consists of Alternative A with additional and replacement direction focused on plan requirements for coordination, assessments, sustainability, species diversity, watershed protections, monitoring, and some additional and alternative definitions. Alternative E consists of Alternative A with additional and replacement direction focused on prescriptive requirements for public notification, assessments, monitoring, and public notification. The Agency identified eight significant issues, which along with the various aspects of the purpose and need define the scope of the effects analysis. The significant issues are related to: ecosystem restoration, watershed protection, diversity of plant and animal communities, climate change, multiple uses, efficiency and effectiveness, transparency and collaboration, and coordination and cooperation beyond National Forest System boundaries. The final programmatic environmental impact statement describes the effects of each alternative with respect to the purpose and need and significant issues.

The final programmatic environmental impact statement is available online at http://www.fs.usda.gov/planningrule.

The responsible official will decide whether to approve the proposed planning rule, the preferred alternative, or some alternative thereto, no less than 30 days after the Environmental Protection Agency's notice of availability of this final programmatic environmental impact statement is published in the *Federal Register*.

The Forest Service planning process provides an important venue to integrate forest restoration, climate resilience, watershed protection, wildlife conservation, the need for vibrant local economies, and the collaboration necessary to manage our national forests. Our best opportunity to accomplish this is in the developing of a new forest planning rule for our national forests.

Tom Vilsack
Secretary of Agriculture

SUMMARY

The Agency is preparing to make a decision on a new land management planning rule at 36 Code of Federal Regulations Part 219. The proposed planning rule would establish new administrative procedures whereby National Forest System (NFS) land management plans are developed, revised, and amended.

On June 30, 2009, the United States District Court for the Northern District of California invalidated the Forest Service's 2008 land management planning rule (2008 rule), holding that it was developed in violation of the National Environmental Planning Act (NEPA) and the Endangered Species Act (ESA). 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)). With the 2008 rule set aside, the 2000 planning rule is once more in effect. The Agency has concerns with its ability to implement the 2000 rule and has consistently exercised the option in the 2000 rule's transition provision to use the 1982 planning rule procedures to develop, revise, and amend land management plans.

A new planning rule is needed to ensure that plans will be responsive to the challenges of climate change; the need for forest restoration and conservation, watershed protection, and wildlife conservation; and the sustainable use of NFS lands to support vibrant communities.

Public Involvement in the Development of the Proposed Rule and Draft EIS

A notice of intent (NOI) to prepare a new planning rule and an accompanying draft environmental impact statement was published in the *Federal Register* on December 18, 2009 (74 FR 67165). The NOI solicited public comments on the proposal until February 16, 2010.

The Agency held a science forum on March 29 and 30, 2010 in Washington, DC, to ground development of a new planning rule in science and to foster a collaborative dialogue among the scientific community. More than 130 people attended the forum in person, while approximately 300 others attended by webcast.

The Forest Service convened a series of four national roundtables held in Washington, DC, during the course of developing the proposed planning rule and an additional 33 regional roundtables during April and May in the following states: Alaska, Arizona, California, Colorado, Georgia, Idaho, Illinois, Montana, Nevada, New Mexico, Oregon, South Dakota, Utah, and Wyoming.

To ensure tribal voices were heard, collaborative efforts also included two national tribal roundtables conducted via conference call in May and August, 2010. Additionally, six

tribal roundtables were held in California, Arizona, and New Mexico. The tribal roundtables were held in addition to formal government-to-government consultations with Tribes. The Agency hosted one national and 15 regional consultation meetings across the country with designated tribal officials in November and December 2010, and also engaged in one-on-one consultation meetings at the local level. The Forest Service continued to conduct government-to-government consultation on the planning rule throughout the process, as tribal consultation is an ongoing, iterative process.

Public Involvement in the Development of the Final Rule and Final Programmatic EIS

The proposed planning rule and draft programmatic environmental impact statement were published for comment on February 14, 2011 (76 FR 8480). The comment period ran for 90 days through May 16, 2011. Early in the comment period, the Agency held a series of public meetings to provide stakeholders with information about the proposed rule. The meetings provided a forum to answer questions and better enable stakeholders to submit comments on the proposed rule.

Between March 10, 2011 and April 7, 2011, the Agency held one national and 28 regional forums, which reached 74 satellite locations across the country. The national meeting was held in Washington, D.C. Regional and satellite meetings were held in the following states: Alabama, Alaska, Arizona, Arkansas, California, Colorado, Florida, Georgia, Idaho, Illinois, Indiana, Kentucky, Michigan, Minnesota, Mississippi, Missouri, Montana, Nevada, New Hampshire, New Mexico, New York, North Carolina, Ohio, Oregon, Pennsylvania, Puerto Rico, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

The tribal consultation that began on September 23, 2010, continued following the release of the proposed rule. The Forest Service considers tribal consultation as an ongoing, iterative process that encompasses development of the proposed rule through the issuance of the final rule.

On March 11, 2011, the Forest Service held a tribal teleconference to discuss with Tribes how their previous comments were addressed in the proposed rule. Sixteen Tribes participated in the discussion. Consultation with Tribes continued at the local level.

Summaries of public involvement may be viewed at http://www.fs.usda.gov/planningrule.

ISSUES

The Council on Environmental Quality (CEQ) regulations at 40 CFR 1501.7 direct agencies to "Determine the scope (§ 1508.25) and the significant issues to be analyzed in depth in the environmental impact statement" and to "identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (§ 1506.3)." The Forest Service identified significant issues from diverging viewpoints and disagreements articulated in comments responding to the December 18, 2009 NOI, the roundtable meetings held throughout the country prior to

issuance of the proposed rule and draft EIS, comments from the comment period on the proposed rule and draft EIS which ended on May 16, 2011, and tribal consultation which occurred throughout the development of the proposed and final rules. The following significant issues were identified. These issues, along with the various aspects of the purpose and need, define the scope of the effects analysis.

Ecosystem Restoration — Some stakeholders have expressed the view that restoration should not be mentioned explicitly in the rule. Support for this perspective includes the points that the NFMA is silent on the concept of restoration; restoration is just one tool of many available to managers; and the concept of restoration will be implicitly addressed as part of habitat management. Others have expressed a desire for the rule to be explicit about restoration or to have a rule that allows management for restoration purposes only.

Watershed Protection — Many people concur with the general notion that, because water quality provides a foundational reflection of landscape health, a key element of the rule should be protection and enhancement of water resources. There is less agreement about what exactly the rule should require with respect to this issue. There is a divergence of opinions on whether to include specific standards in the rule for such things as riparian management zone widths, road density, and restrictions on certain activities that may affect watershed health. Others believe that including specific standards in the rule would not provide the flexibility needed to address resources concerns across the highly variable conditions of the National Forest System.

Diversity of Plant and Animal Communities — People have differing opinions about the most appropriate way for the rule to provide guidance for maintaining plant and animal diversity, contributing to the recovery of threatened and endangered species, and whether to include the viability of native species within the plan area. Some people believe the planning rule should include requirements for maintaining viable populations of species much like the 1982 rule did. Others suggest the planning rule should consider an ecological condition or habitat-based approach to maintaining viability by focusing on maintenance or restoration of the structure, composition, processes, connectivity, and diversity of healthy and resilient terrestrial and aquatic ecosystems in the plan area. Many people do not want any species viability requirements to be included in the rule. Instead they argue that the rule should simply meet the NFMA requirement that NFS lands support the diversity of plant and animal communities. People have very differing opinions as to what type and level of monitoring should be required by the rule. Some people want to continue with management indicator species (MIS) monitoring. Others believe that MIS is no longer supported by the science. Many people do not want the rule to require any species monitoring.

Climate Change —Two general perspectives have been expressed about whether climate change should be addressed in the rule. The first perspective is that climate change does not need to be mentioned in the rule. The second is that climate change is such a fundamental ecosystem stressor that the rule must explicitly address it.

Subscribers to the first viewpoint have said there is too much uncertainty about the causes and effects of climate change (particularly at the unit level) to address in a planning rule. Those of the second opinion suggest that the rule should require a thorough consideration of climate change in the planning process including an acknowledgement of the local climate conditions and uncertainties. Some people would like to see the rule expand the discussion of climate change beyond issues of resistance, resilience, and disturbance regimes and instead to focusing on managing for biome shifts.

Multiple Uses — Generally, people have said that the best way for the Forest Service to contribute to social and economic sustainability is to maintain a focus in the rule on ensuring healthy forest ecosystems. Many people note that the Forest Service does not really have much ability to influence economies, and should focus instead on the land management business it knows best. Others suggest that a substantial amount of jobs and income in some communities depend on the multiple uses of NFS lands, particularly from outdoor recreation, timber harvest, and livestock grazing. There is broad agreement that recreation is a sustainable use of NFS lands that contributes significantly to local economies. People generally agree the rule should reflect recreation as a core value, although views vary about how this core value should be reconciled with other core values and legal requirements. That is, some suggest recreation should be highlighted in the rule to convey that recreation is an important multiple-use resource so that resulting land management plans would adequately address the recreation resource, while others argue for addressing recreation as one of the many multiple uses of NFS lands. Others observe that recreation should be given the same level of recognition as other multiple uses. In general, people say that the planning rule should set broad objectives for recreation and should identify analytical assessment and evaluation tools to inform decisionmakers at the local level in making specific land use decisions.

Some people have pointed out the importance of grazing to their communities and that grazing can be managed sustainably. Others argue that grazing has serious resource impacts and should not be allowed on NFS lands or should at least not be allowed within certain areas (such as riparian areas).

Other people have expressed the view that timber harvest supports economic sustainability through the production of timber, pulp for paper, specialty woods for furniture, and fuel for small-scale renewable energy projects. They point out that harvesting, whether for restoration or wood production objectives, provides employment and tax revenue in many counties throughout the country. Others believe that timber harvest should be used as a tool for restoration and that timber harvest solely for timber production should not be allowed on NFS lands.

Efficiency and Effectiveness — Some people argue for a simple planning process because they believe that planning has taken too much funding away from important resource management projects and has taken too much of people's time. Others agree with keeping the rule simple, but advocate for prescriptive rule provisions which would establish specific, detailed requirements to address a particular resource or use of NFS lands. Throughout discussions on the other issues, there was amicable tension

between those who desire a prescriptive planning rule and those who want flexibility to address local concerns.

Transparency and Collaboration — People recognize that there are many stakeholders interested in land management planning and all should have the opportunity to be engaged in the collaboration process. Many have expressed frustration with traditional input mechanisms, where input was gathered but its consideration by the Forest Service was not always evident – a feeling intensified by a less-than-transparent processes. Some people suggest the planning rule should establish a structured public involvement and collaboration process for plan development, revision, and amendment. Others believe that while the rule should require collaboration and public engagement in planning, effective collaboration must be "place-based" so that it can be tailored to the specific issues and interested publics.

Coordination and Cooperation Beyond NFS Boundaries — People note that boundaries are permeable and that an "all lands" approach could be useful for achieving many different management objectives, including protecting at-risk species, creating resilient ecosystems, protecting watersheds, historic preservation, supporting trails that cross jurisdictions, and providing recreational access.

PROPOSED ACTION AND ALTERNATIVES

The above issues led the Agency to develop a proposed action and alternatives. In response to the significant issues, the Forest Service developed six alternatives for detailed study, including the no-action and proposed action alternatives.

Alternative A (Proposed Action)

The proposed planning rule is developed around a framework within which land managers and partners would work together to understand conditions on the land, develop management plans to respond to existing and predicted conditions and needs, and monitor changing conditions and the effectiveness of management actions to provide a continuous feedback loop. The framework consists of a three-part learning and planning cycle:

- Assess conditions and stressors, including climate change, on the NFS unit and in the context of the broader landscape;
- 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 management actions produce desired outcomes.

Based on public comment and past experience, Alternative A would require the consideration and integration of the management of physical, biological, social, and cultural resources, given a unit's distinctive roles and contributions of ecosystem services and multiple uses to the local area, region, and Nation. The roles and contributions are developed through the public participation process.

Alternative A would require preparation of an environmental impact statement and a record of decision for new plans and plan revisions. This alternative would provide guidance for plans to require monitoring 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 re-assessment and plan revision or amendment.

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 to the document structure. The changes are based on public comment received during the comment period on the draft EIS 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.

A detailed analysis was conducted to determine if there was any difference in effects between Alternative A and Modified Alternative A. Because Modified Alternative A clearly reflects the intent of Alternative A, there were very few differences in effects between the two alternatives. Differences in effects between Alternative A and Modified Alternative A were found in a few instances; these were effects on plan content and the planning process when clarity of language and intent may lead to greater consistency in implementation. No differences in effects on resources were found. The Forest Service considered the available option of replacing Alternative A with new proposed rule text. However, because Modified Alternative *looks* different than Alternative A, the agency has included it as a new alternative for transparency and ease of the reviewer.

Alternative B (No Action)

Under this alternative, the planning provisions of the 1982 rule—last included in the Code of Federal Regulations at 36 CFR part 219 (2000)—would guide development, revision, and amendment of land management plans for the National Forest System. Use of the 1982 rule planning provisions is allowed under the transition language of the 2000 planning rule currently in effect (36 CFR part 219.35).

Alternative C

This alternative was developed to address concerns that land management planning has greatly exceeded the scope and intent of National Forest Management Act (NFMA) and in so doing has taken an excessive toll in cost and time invested, by both Forest Service employees and the public. This alternative requires that the land management planning process and resulting plans be limited to the minimum requirements of NFMA, with the addition of minimal requirements to meet the purpose and need for a new rule set out in this final programmatic environmental impact statement.

Alternative D

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 plan content for resource protection, as opposed to other issues that are concerned with procedural requirements. This alternative consists of the proposed rule (Alternative A) with additional and replacement direction focused on coordination requirements at § 219.4, assessment requirement s 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.

Alternative E

This alternative was developed in response to concerns and suggestions for prescriptive monitoring and assessment questions and requirements to establish signals for each monitoring question to identify the need for plan amendment or revision. Additionally, this alternative responds to the desires of some people to see specific requirements for collaboration in the planning rule in order to ensure consistency and accountability across NFS units. This alternative consists of the proposed rule (Alternative A) with additional and replacement direction focused on prescriptive requirements for public notification at § 219.4, assessment requirements at § 219.6, monitoring requirements at § 219.12, and public notification requirements at § 219.16.

Alternatives Eliminated from Detailed Study

The following alternatives were considered but eliminated from further study once they were found not to meet the purpose and need for action.

- The land management plan development, revision, and amendment provisions of the 2000 planning rule;
- An alternative requiring the land management planning process and resulting plans to be limited to the minimum requirements of NFMA;
- An alternative requiring the responsible official to give more consideration to comments from members of local communities than comments provided by individuals or special interest groups who are not part of the local community;
- An alternative consisting of a highly prescriptive planning rule that set national standards for all aspects of land management plans; this alternative would essentially constitute a national land management plan;
- An alternative planning rule that would allow timber harvest only for restoration purposes;
- An alternative that would require plans to give recreation the greatest value among the various multiple uses of NFS lands;
- An alternative that would require regional planning and regional guides such as were included in the 1982 planning rule;
- The 2008 planning rule; and
- The 1982 planning rule in its entirety.

MAJOR CONCLUSIONS OF THE ENVIRONMENTAL ANALYSIS

Ecosystem Restoration

Alternative A

Plans would include components related to restoration activities. As individual plans developed or revised under this alternative are implemented over time, 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, including climate change.

As forest and grassland plans 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 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.

The 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. 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). Degraded ecosystems on NFS lands would be expected to be restored, but the rate and extent of restoration is more uncertain under this alternative than under the other alternatives except for Alternative C.

As forest and grassland 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 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. Plans would include components that lead to restoration of terrestrial and aquatic systems. However, inherently, there would also be greater uncertainty as to whether restoration of ecosystem components not specifically required by the alternative would be considered and included in plan revision or amendment.

Alternative D

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

This alternative includes an increased emphasis on coordination across multiple planning units for species viability, in plan development, assessment, and monitoring; and increased interagency coordination of the management of planning areas at the landscape level over other alternatives.

The additional coordination requirements are likely to lead to more landscape-scale restoration approaches that use a single process, coordinated among multiple partners to determine appropriate plan components and monitoring plans. Landscape-level restoration activities would be further informed by coordination with adjacent planning units, other landowners, and land managers engaged in species conservation.

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 than under other alternatives. The use of signal points 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 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.

Diversity of Plant and Animal Communities

Alternative A

Maintaining Species Diversity

All plans would incorporate a complementary coarse-filter and 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 considers all native species, 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 recognize 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 is intended to lead to more effective collaborative approaches for addressing the rangewide concerns of these species.

This alternative would include a collaborative, all-lands approach to maintaining biological diversity. This approach provides a framework for recovering threatened and endangered species, reducing the risk of the listing of candidate species from becoming a Federal listed species, and conserving other species of conservation concern that is well supported in the scientific literature.

Managing Ecological (Habitat) Conditions

The responsible official would assess key ecosystem characteristics of terrestrial and aquatic ecosystems 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 measures for riparian areas. 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 are expected to be more effective and efficient than those under the 1982 planning rule at assessing the diversity of plant and animal communities and persistence of native species within the plan area. Information from this monitoring would be expected to identify the need to amend or revise a plan or alter management approaches and activities in a more timely manner than monitoring under the 1982 planning rule.

Planning would establish a two-tiered approach to monitoring, emphasize collaboration and coordination, and increase the role of science over that required under the 1982 planning rule. These procedures and processes allow for 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 than under Alternative A.

The regional forester will identify the species of conservation concern. This should increase efficiency in planning because many of these species may be wide-ranging and may potentially be species of conservation concern across several units. This also is expected to increase consistency in the development of criteria for selecting these species.

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 explicit 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.

Plans would continue to provide explicit fish and wildlife conservation direction, which has benefitted these resources in the past. This would be expected to continue as plans are developed and revised under this rule.

This alternative allows for more discretion of 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 Alternatives A, Modified A, D and E. This may yield more 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.

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, overall habitat management approaches 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 the responsible official's ability to assess the viability of all native species within the plan area.

Alternative C

Maintaining Species Diversity

There would be considerable discretion for addressing the diversity of plant and animal communities and species diversity because there are no specific requirements for how this NFMA requirement is to be met. Plans developed and implemented under these provisions are 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 related to providing diversity of plant and animal communities and the persistence of native species. This provides flexibility but also could lead to broader interpretations of what plans must contain and to inconsistencies from one unit to another as to how species diversity is to be maintained within a plan area.

Monitoring to Assess Effectiveness

There would be considerable discretion on what would be in monitoring plans because there are no specific requirements in this alternative. 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. The responsible official is provided more discretion 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 could lead to inconsistent use of this information when addressing species viability issues that extend beyond national forest and grassland boundaries.

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 coordination with other land managers for species whose range and long-term viability are associated with lands beyond the plan area. This coordination is expected to 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 inconsistency 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, habitat quality and quantity is expected to increase, 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

This alternative includes 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 could lead to more effective approaches to the conservation of all species within the region of a plan than other alternatives.

The requirements for public participation in this alternative provide a mandatory and more structured process for collaboration during plan development or revision. In terms

of implications for species viability, managing ecological conditions, monitoring, and additional public participation requirements or a structured public participation process could result in: more fully incorporating an all-lands approach to maintaining species viability within and beyond the plan area; bringing new and innovative concepts to the issues; and increased ownership in Agency-based approaches to maintaining biological diversity. However, the prescriptive approach for monitoring and public participation required under this alternative may not be the best fit in all situations.

Monitoring to Assess Effectiveness

This alternative includes more specific requirements related to monitoring than other alternatives. If the Agency were able to effectively and adequately implement these requirements, 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 the plan area.

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 past actions or changes, viability of remaining populations, financial resources, and the timeframe for desired recovery.

Road System

With the watershed maintenance and restoration emphasis of Alternative A, coupled with the 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. 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

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 timeframe 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, is expected to provide 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 requires the Chief of the Forest Service to establish requirements for national Best Management Practices (BMPs) for water and plan components must ensure implementation of these practices. The use of BMPs for water quality has been demonstrated to mitigate detrimental effects of other management activities on water quality. All forests and grasslands currently use some form of BMPs and the use of BMPs will continue under all alternatives, including the no-action alternative. Under Modified Alternative A the use of BMPs would be explicitly required by plans.

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 the values and functions that healthy riparian areas provide" and the mitigation requirements of Alternative B stating: "no management practices causing detrimental changes in water temperature or chemical composition, blockages of water courses, or deposits of sediment shall be permitted within these areas which seriously and adversely affect water conditions or fish habitat."

The requirement of Alternative A 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 demonstrable difference in programmatic effects to resources between Alternative A and Modified Alternative A.

Under Modified Alternative A, all plans will include plan components to maintain or restore air quality, soils and soil productivity, water quality, and water resources in the plan area.

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 in Chapter 2. 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, though unlikely, that some plans created or revised under this alternative could take a mitigation approach rather than an active restoration approach. In times 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 would remain in poor condition or may degrade further.

Road System

Under Alternative B, coupled with the 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 provision was implemented as a 100-foot "no management" buffer. In the absence of natural disturbance or management activities that mimic natural disturbance, riparian health can decline.

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 could 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 Alternative A, Modified Alternative A, D, or E. Alternative B focuses on 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 county'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 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 to plan content and the planning process would be and, in turn, the uncertainty as to potential effects to 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., eastern continental United States). The lack of flexibility could result in plans or planning processes that less effectively address local watershed issues.

Road System

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.

Because changing restoration priorities could 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 areas.

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 (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 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 could 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. Historical ranges of variation as standards or guidelines for restoration may be inappropriate in the face of changing climates. Realignment with current processes and dynamics may be more effective in facilitating recovery and adaptation to changing climate than restoration to historical pre-disturbance conditions.

The added requirements might also 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.

Climate Change

Alternative A

Under this alternative 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 under the current rule. 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 the current planning rule.

It is expected that over time the planning framework in Alternative A would 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, beyond what is required today.

Modified Alternative A

The effects of this alternative are similar to the effects of 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 Alternatives A, Modified A, D and E.

Alternative B does not have a planning framework designed for adaptive management. As a result, opportunities to obtain information about reducing uncertainties of climate change would not be as available as under Alternatives A, Modified A, D and E. 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 plans.

Plans initially created under the 1982 rule generally contained analysis only about the NFS unit, without considering information beyond 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, 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 address 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 Alternative A.

Alternative E

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

Alternative E 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 monitor 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 should lead to a greater recognition of the uncertainties of climate change through monitoring and assessment and more opportunities for a rapid response to climate change through plan amendments than Alternative A.

Additional monitoring requirements could lengthen the planning process. Extra time is expected to reach agreements on signal points, or thresholds 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, which provides a comprehensive planning approach for recreation. As plans are implemented over time, the quality of the outdoor recreation experience would be improved. 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, it 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 healthy conditions. With the focus on providing for sustainable uses, a unit would be expected to contribute an element of stability to local economies. The current trend for range management as displayed in the affected environment in Chapter 3 would not expected to be greatly affected by the selection of this alternative as the final rule. Where restoration is needed and livestock grazing is identified as a stressor, allotment management plans would be expected to be modified (e.g., 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, trends in the NFS timber program would be expected to continue as described in the Affected Environment section.

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 would vary widely 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 1982 procedures 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 less capacity than Alternatives A, Modified A, D, and E for considering and incorporating the broad range of values affecting economic sectors and social segments within rural and/or amenity-dependent communities.

Range

Planning under 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 described in the Affected Environment section would be expected to continue.

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

in this alternative. Consequently, plans would tend 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 the maintenance of 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. 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 under this alternative.

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 less consistency in assessment of the rangeland resource, plan components to guide its management, or monitoring across NFS units.

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 only be identified 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 would require significant investment in exclosure of riparian areas if grazing were to continue at current levels 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.

Range

The additional elements prescribed under this alternative would be expected to provide information so that the responsible official could potentially 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

Implementation of this rule would cost the Agency approximately $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. Over a 15-year planning cycle, management units would be expected to be engaged in plan revisions for three to four years. As a result, with the same level of funding, more plans can be completed or revised within a 15 year planning cycle than under Alternative B. A learning curve is expected under Alternatives A due in part to reallocation of resources across different planning tasks and greater emphasis on collaboration, broader-scale monitoring, a coarse-filter and fine-filter approach for diversity, rapid assessments, and other procedures. During the initial efforts by management units to develop, revise, or amend plans under Alternatives A or Modified A, costs are expected to reflect additional time and resources needed to adjust to a new planning framework, including training. Still, efficiency gains are expected during the initial planning efforts. And, as the new process becomes established, planning costs in subsequent planning cycles are expected to decrease. New requirements to consider diversity and sustainability in monitoring, assessments, and plan components are expected to improve the foundation for designing cost-effective projects (recalling that project-level costs are not included in the analysis of planning costs).

Modified Alternative A

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 and B, 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). Gains in planning efficiency and cost effectiveness are projected to be similar under Alternative A and Modified Alternative A, compared to Alternative B. Long-term gains in planning efficiency are likewise expected to be similar under Alternative A and Modified Alternative A. Changes in rule language under Modified Alternative A will clarify the intent and enhance the gains in planning efficiency of Alternative A. Over a 15-year planning cycle, management units would be expected to be engaged in plan revisions for three to four years.

Alternative B

Implementation of this rule would continue to cost the Agency approximately $104 million annually. This alternative represents current plan development, revision, and amendment procedures, which 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 the proposed rule even though not required. Under Alternative B, this trend is expected to continue. However, 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. Over a 15-year planning cycle, management units would be expected to be engaged in plan revisions for five years, compared to three to four years under Alternatives A and Modified A.

Alternative C

Implementation of this rule would cost the Agency approximately $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 in 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 or as adaptive a framework as found in Alternative A that can facilitate adaptation to new information about risks and stressors. 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

Implementation of this rule would cost the Agency approximately $116.0 million annually ($11.9 million more than the current rule (Alternative B)). This alternative's additional requirements for plan components to provide for maintenance and restoration of riparian and watershed health could bring consistency in maintenance and restoration of riparian and watershed health to some units while having little effect on other units where riparian and watershed health is already a priority. Unit expenditures on required species monitoring under this alternative could reduce a unit's flexibility to fund other monitoring priorities. The effects of this alternative would otherwise be similar to Alternative A.

Alternative E

Implementation of this rule would cost the Agency approximately $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 viability objectives. Additional requirements 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 reduce willingness 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, however, and as a result 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 the same level of understanding of local issues as local officials do, however, 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 effects of this alternative would be similar to Alternative A with the following exceptions:.

The public involvement process for plan development or revision would be standardized, resulting in more stakeholders potentially 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 ownership in the process and its outcomes, disguise a lack of commitment in the process, and reduce willingness to work collaboratively during subsequent planning efforts.

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 required, inviting them to participate in the assessment process and the development of the proposed plan, plan amendment, or plan revision instead of waiting until the proposed plan is issued for comment. 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

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

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.

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