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**Attn: 36 CFR 219, National Forest System Land Management Planning, Proposed Rule, Federal Register, Volume 76, No. 30, pages 8480-8528, February 14, 2011.**

Dear Mr. Sherman,

Thank you for this opportunity to comment on the proposed National Forest Management Act (NFMA) planning rule, Draft Environmental Impact Statement, Appendices, and associated documents. Defenders of Wildlife (Defenders) is a national non-profit, public interest conservation organization with nearly one million members and supporters nationwide. Defenders is dedicated to the protection of all native wild animals and plants in their natural communities, and our members value the National Forest System for its abundant wildlife resources, key role in the preservation of biodiversity, and unparalleled opportunities for recreation. These comments are directed to the Federal Register Notice, National Forest System Land Management Planning, Proposed Rule, Federal Register, Volume 76, No. 30, pages 8480-8528 and aforementioned materials.

The United States is one of the most ecologically diverse nations on Earth. This diversity is reflected in the variety of landscapes throughout 193 million acres of national forests and grasslands that sustain a rich tapestry of life. Three-quarters of the major U.S. terrestrial and wetland habitat types are found on national forests. These habitats are a lifeline for one-fifth of federally threatened and endangered species in America.<sup>1</sup> The management of national forests and grasslands, and the laws, regulations, and rules under which they are managed, are therefore of great importance to our members.

### **Defenders supports the overarching policy goals of the proposed rule**

Defenders supports the overarching policy goals of the proposed planning rule: to protect, reconnect and restore national forests and grasslands. Integration of forest restoration, watershed

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<sup>1</sup> Bruce A. Stein, et al., The Nature Conservancy and Association for Biodiversity Information, *Precious Heritage: The Status of Biodiversity in the United States*, Oxford University Press, 2000.

protection, climate resiliency, wildlife conservation, and the need to support vibrant local economies are laudable policy goals whose achievement is made possible by an effective forest planning rule.

The proposed rule sets the right course for national forest policy by focusing on the challenges facing our national forests and by articulating collective objectives shared across broad segments of American society to respond to those challenges. The proposed rule's aim to intelligently respond to the uncertain affects of climate change, to restore the resiliency and integrity of forest ecosystems and to conserve biodiversity, water, watersheds and wildlife is commendable. The proposed rule wisely acknowledges broad consensus amongst stakeholders, policymakers and the agency that our national forests are in need of meaningful ecological restoration. The proposed rule's twin ecological goals of resiliency and integrity broadly capture the intention to improve the condition of forest ecosystems. Developing the means to manage for and evaluate achievement of these broad conceptual goals is a challenge that we hope our comments will contribute to solving.

Defenders supports the agency's attempt to manage adaptively. As the agency knows, the achievement of true adaptive management in the natural resource field has been elusive. The challenges of information management in complex ecological settings, coupled with the need to squarely acknowledge uncertainty and reveal assumptions, constitute challenges for any organization. Ultimately, successful adaptive management requires flexibility within natural resource agencies and an ability to acknowledge risks and failures and move on from them. In addition, successful adaptive management requires a firm commitment to the development of measurable policy outcomes and application of rigorous evaluation and monitoring methods. Failure to commit to a rigorous adaptive management approach will only serve to erode public confidence in the ability of the Forest Service to transfer the theory of adaptive management to practice.

### **The purpose of our comments**

Our comments provide workable fixes to the proposed rule's primary problem areas, mainly in the areas of assessment, diversity management, and monitoring; the key components of adaptive, science-based land management planning and decision-making. Throughout this letter we attempt to provide the agency with meaningful recommendations to better align the rule's aspirations with its words. We believe that flaws with regards to ambiguity and discretion undermine the likely effectiveness of the proposed rule and summarize these comments below.

Generally, we offer suggestions on how to better facilitate adaptive management and effective decision-making. In many cases this requires clarification and better prescription of process. We do not feel that enhanced clarity in any way detracts from the ability of the rule to facilitate efficient planning. Clarity and prescription of process, for example in assessments, simply ensures that the rule will be applied as intended.

We offer clear suggestions for improving the critically important diversity provisions. The agency has proposed a diversity management strategy that is strong in concept, yet poor in design. Concrete recommendations are made to improve the design, including:

1. Clarifying that the purpose of the coarse-filter is to provide for the long-term persistence of individual species
2. Providing focal species with a more robust role in validating the resiliency and health of ecosystems

3. Prescribing a process to identify and develop targeted plan components for species of conservation concern
4. Clarifying the definition of a viable population
5. Providing a means to determine when conditions outside the authority of the agency make it impossible to meet diversity requirements

Similar recommendations are made for other key sections, with the intent of giving this rule the structure that it will need to long remain the cornerstone of forest planning and management.

In addition, we provide comments on the Draft Environmental Impact Statement that accompanies the proposed rule. We have concerns that some areas of analysis within the document are insufficient, and we seek to provide detailed feedback on our concerns and how they can be addressed in the Final Environmental Impact Statement.

### **Ambiguity and discretion limit the effectiveness of the proposed rule**

The NFMA planning rule will be judged by how effectively it guides the development of forest plans and subsequent implementation of management actions to protect and restore America's national forests. We strongly believe that without critical improvements the rule will fall short of achieving these laudable policy goals across the National Forest System. The proposed rule's ambiguity creates considerable discretion in interpreting the rule's requirements and procedures. Defenders is concerned that this discretion will translate into inconsistent, and potentially deleterious, land management decisions. In addition, policy ambiguity, rather than serving to deflate conflict over forest management as the agency purports, may in fact inflame controversy.

The proposed rule lacks sufficient clarity and structure, and provides too much discretion at the individual forest plan level, to ensure that policy goals translate into measurable on-the-ground outcomes. Critically, the proposed rule lacks the essential ingredients to perform effective, science-based land management planning and decision-making:

1. The proposed rule lacks well defined, measurable standards in key areas such as sustainability and diversity of plant and animal communities.
2. The proposed rule fails to prescribe science-based analytical tools to establish and evaluate compliance with the standards. This weakness is pronounced in the assessment and monitoring sections.
3. The proposed rule falls short in guiding consistent implementation of science-based assessments, decision-making and monitoring, the cornerstones of effective adaptive management.

The proposed rule is highly ambiguous and offers the local responsible official an incredible amount of discretion. This lack of clarity has led to broadly different interpretation of the rule's requirements, not only amongst Defenders staff and other stakeholders, but seemingly within the agency ranks as well. In the public forums the agency held to promote the rule, agency staff interpretations of how the rule would be implemented varied considerably. Meanwhile the Draft Programmatic Environmental Impact Statement (DEIS) presents yet another interpretation of how the rule would be implemented.

To cite one example that is emblematic of the problem, the DEIS states that: “Under the proposed rule, an assessment (§219.6) of the ecosystem characteristics within the plan area is to be conducted as part of the planning process. This assessment would identify the ecological conditions needed to support all native species within the planning area.”<sup>2</sup> It is extremely difficult for us to come to the same conclusion. There is no reference to “ecosystem characteristics” in §219.6, nor is there any indication that the assessments called for under that section would evaluate the relationship between ecological conditions and the support of “all native species”. Allowing for this amount of liberty in interpreting the rule’s meaning and requirements threatens effective implementation.

We strongly caution the agency to avoid the allure of ambiguity and discretion. The significant departure from the 2000 planning rule represented by the 2005 and 2008 proposals continues to a great degree in the proposed rule. Public confidence and perceived legitimacy in the forest planning rule is paramount for effective implementation. The decision to decentralize interpretation of the rule’s meaning to local forests carries tremendous risk. As members of the conservation community dedicated to effective local collaboration and problem solving, we urge the Forest Service to consider clarifying the rule’s purposes and requirements so that stakeholders can effectively collaborate for the achievement of well defined policy objectives, rather than enter into laborious conflict over the meaning of the planning rule. Unless expectations regarding interpretation and implementation are clear from the start, there is a serious risk of forest by forest interpretation that will not only undermine the rule but seriously compromise management of the National Forest System overall.

Outsourcing interpretation of the rule to the local level also burdens local officials with decisions that may be more contentious than the agency predicts. As a policy matter, we believe local managers benefit from clear guidance and common procedural requirements in managing national forests. Such guidance, direction, and requirements will help them as they manage national forests, and provide administrations, Congress, and the public assurance that forest management will not cross certain unacceptable thresholds. The 1997 Committee of Scientists received feedback that many forest managers sought more detailed instructions than provided by the 1982 regulations. Minimum requirements and actions are not inconsistent with discretion; they merely place floors and sideboards on that discretion, and channel it in the right direction. Ample discretion can be found within the 1982 and 2000 regulations, for example, allowing forest managers wide latitude in managing a national forest as long as they stay within acceptable bounds. It is insufficient to shift all prescriptive, detailed, and mandatory requirements and procedures to the Forest Service Manual and Handbook, as the proposed rule would do.

### **Statutory and Legislative History of NFMA**

NFMA was enacted in 1976 as national forest management reform legislation. The legislative history of NFMA reveals that the purpose and intent of the law is to change and improve the nation’s forest management policy. The great increase in demand for timber after World War II resulted in a growing cycle of clearcutting and logging practices on national forests which the public and Congress found increasingly unacceptable.<sup>3</sup> The increased logging on national forests resulted in a

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<sup>2</sup> U.S. Department of Agriculture, Forest Service, Draft Programmatic Environmental Impact Statement, National Forest System Land Management Planning (DEIS) at 111.

<sup>3</sup> Charles F. Wilkinson and H. Michael Anderson, *Land and Resource Planning in the National Forests*. 64 Oregon Law Review 1&2 at 69 (1985).

loss of wildlife habitat and a decline in species populations in the national forests.<sup>4</sup> As a response, “[p]ublic and congressional activism during the 1970s resulted in a broad statutory mandate in the National Forest Management Act to redirect traditional multiple-use policy as applied to wildlife” habitat protection.<sup>5</sup> Although the legislation itself and the accompanying legislative history is replete with issues, particularly criticism of clearcutting, a primary concern was the protection of biological diversity.

Senator Hubert Humphrey, a principal sponsor of NFMA, said that the Multiple Use and Sustained Yield Act “had not succeeded and that a ‘fundamental reform’ was needed.”<sup>6</sup> The values and priorities that NFMA was intended to incorporate into the nation’s forest management policies, especially the protection of nontimber resources from timber harvests, was articulated by Senator Humphrey:

The days have ended when the forest may be viewed only as trees and trees viewed only as timber. The soil and the water, the grasses and the shrubs, the fish and the wildlife, and the beauty that is the forest must become integral parts of resource mangers’ thinking and actions.<sup>7</sup>

Senator Floyd Haskell stated that the protection of nontimber resources “must be assigned as great a priority in any forest management policy as the production of timber.”<sup>8</sup> This desire to strike the balance between competing interests in the resources of national forests and prioritize the preservation of biological diversity was further articulated by James Moorman, a former Assistant Attorney General who contributed to the development of the law, stated that “[o]ne big concern to the public...is the protection of nontimber resources impacted by timber management, principally soils, fish and wildlife, and the natural ecosystems of the forest... The basic injunction of that section is to preserve the natural diversity of forest types and species.”<sup>9</sup>

### **Regulatory History since 1982**

As commanded by NFMA, in 1982 the Forest Service promulgated regulations to implement the diversity requirement and other statutory mandates.<sup>10</sup> NFMA requires that the Forest Service’s planning regulations shall “provide for diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives.”<sup>11</sup> Further, the regulations must, “where appropriate, and to the degree practicable,” provide for “steps to be taken to preserve the diversity of tree species similar to that existing in the region controlled by the plan” that are “within the multiple-use objectives of a land management plan...”<sup>12</sup>

Courts have identified the maintenance of diversity on national forests as a substantive standard the Forest Service must meet. For example, the NFMA diversity mandate not only imposes a

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<sup>4</sup> *Id.* at 274.

<sup>5</sup> *Id.*

<sup>6</sup> *Id.* at 69 (quoting 122 Cong. Rec. 5618-19 (1976)).

<sup>7</sup> *Id.* at 70 (quoting 122 Cong. Rec. 5619 (1979)).

<sup>8</sup> *Id.*

<sup>9</sup> *Id.* at 292, fn 1561.

<sup>10</sup> 36 C.F.R. § 219 (1982).

<sup>11</sup> 16 U.S.C. § 1604(g)(3)(B).

<sup>12</sup> *Id.*

substantive standard upon the Forest Service, it “confirms the Forest Service’s duty to protect [all] wildlife.”<sup>13</sup> The Forest Service’s “statutory duty clearly requires protection of the entire biological community.”<sup>14</sup> NFMA “imposes substantive requirements as well, which have been promulgated as regulations.”<sup>15</sup> The 1982 regulations correctly recognized the substantive, non-discretionary nature of the NFMA diversity mandate, and sought to ensure it would be met with the mandatory 1982 viability regulation, which courts have consistently upheld.<sup>16</sup> The proposed regulations ignore these court interpretations and instead apply their own interpretation of the NFMA diversity mandate as discretionary and optional.

The history of Forest Service attempts to modify the 1982 NFMA regulations provides important guidance about what the agency must take into account in the current rulemaking and accompanying National Environmental Policy Act (NEPA) process. On three separate occasions, the Service has attempted to deny the environmental impacts of its national planning regulations and therefore limit applicable review under NEPA and the Endangered Species Act (ESA). On each occasion, however, the relevant court rejected this approach and found that environmental effects indeed flow from these rules that govern more than 192 million acres of our national forests.

First, the Forest Service attempted to modify its regulations in 2000. In defending itself from challenge from environmental plaintiffs, the Forest Service asserted that the 2000 Rule had no effect on the environment, or impacts on listed species, and therefore that it had no duty to prepare a NEPA analysis or to undergo Section 7 consultation pursuant to the Endangered Species Act (ESA).<sup>17</sup> The Ninth Circuit Court of Appeals determined, however, that the 2000 Rule substantially changed existing regulations, “decrease[d] substantive environmental requirements,” and “pose[d] an actual, physical effect on the environment in national forests.”<sup>18</sup>

Second, a different coalition of plaintiffs, including Defenders, challenged the Service’s attempt to revise the NFMA regulations in 2005.<sup>19</sup> Of particular concern to Defenders was the 2005 Rule’s evisceration of the “wildlife viability” requirement that had been part of the Forest Service’s planning regulations since 1982, as well as other mandatory standards and guidelines for logging and other activities on the forests. In court, the plaintiffs argued that the Forest Service failed to provide an analysis of the 2005 Rule’s environmental impacts as required by NEPA and failed to consult with the expert wildlife agencies regarding the rule’s effects on federally-listed endangered and threatened species as required by the ESA. The Forest Service again responded that the 2005 Rule had no impacts on the environment or effects on listed species. The court held that Forest Service violated NEPA both because it invoked a categorical exclusion from NEPA that did not apply to the rulemaking and because the use of any categorical exclusion is inappropriate if the agency action

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<sup>13</sup> *Seattle Audubon Soc’y v. Moseley*, 798 F. Supp. 1484, 1489 (W.D. Wash. 1992).

<sup>14</sup> *Sierra Club v. Espy*, 822 F.Supp. 356, 364 (E.D. Tex. 1993) (rev’d on other grounds, 38 F.3d 792 (5th Cir. 1994)).

<sup>15</sup> *Inland Empire Public Lands Council v. U.S. Forest Serv.*, 88 F.3d 754, 757 (9th Cir. 1996) (citing 16 U.S.C. § 1604(g)(3)). See also *Id.* at 759 (citing 16 U.S.C. § 1604(g)(3)(B)); *Idaho Sporting Congress v. Thomas*, 137 F.3d at 1153 (citing *Inland Empire*, 88 F.3d at 759); *Utah Environmental Congress v. Zieroth*, 190 F.Supp.2d 1265, 1268 (D. Utah 2002) (citing 16 U.S.C. § 1604(g)(3)(B)).

<sup>16</sup> See, e.g., *Sierra Club v. Martin*, 168 F.3d 1 (11th Cir. 1999); *Forest Guardians v. U.S. Forest Serv.*, 180 F.Supp.2d 1273 (D.N.M. 2001); *Utah Environmental Congress*, at 1268.

<sup>17</sup> *Citizens for Better Forestry v. U.S. Dep’t of Agriculture*, 341 F.3d 961 (9th Cir. 2003) (“*Citizens I*”).

<sup>18</sup> *Citizens I*, 341 F.3d at 972-73. The Ninth Circuit did not rule whether USDA violated the ESA, because it found that the “record is insufficient on this claim.” *Citizens I*, 341 F.3d at 971 n.5.

<sup>19</sup> *Citizens for Better Forestry v. U.S. Dep’t of Agric.*, 481 F. Supp. 2d 1059 (N.D. Cal. 2007) (“*Citizens II*”).

may have significant impacts on the environment.<sup>20</sup> The court further held that the Forest Service violated the ESA by failing to consult with the expert wildlife agencies, given that the 2005 Rule “may affect” listed species and their habitat, and that the Forest Service failed to support its finding that the Rule would have no impacts on such species.<sup>21</sup> The court enjoined implementation of the 2005 Rule until the agency “fully complied” with NEPA and the ESA.<sup>22</sup>

Third, in April 2008, the Forest Service adopted yet another final rule, this one almost identical to the 2005 rule previously invalidated, and Defenders and its partners again returned to court.<sup>23</sup> The 2008 Rule again sought to eliminate or greatly reduce substantive protections for wildlife, fish, and other natural resources across the national forests and grasslands. The Bush administration had trumpeted this approach, in which forest plans became aspirational “vision documents” rather than binding management guidance, as a “paradigm shift” in its management of the national forests, and contended that because the new forest plans would ostensibly not make decisions or contain binding standards, they would have no environmental impact. The 2008 Rule further sought to categorically exclude forest plans from environmental analysis, documentation, and public participation required by NEPA.

The court in *Citizens III* found that the 2008 Rule took “the same basic approach to forest plan development” as the 2005 Rule and that although the Forest Service completed an EIS in an effort to comply with the decision in *Citizens II*, its analysis was still based on the premise “that the proposed rule would have no direct or indirect impact on the environment because the rule was programmatic in nature and did not, in itself, effect any predictable changes in the management of specific National Forest sites.”<sup>24</sup> While the 2000 Rule weakened mandatory resource protections in the 1982 NFMA regulations, the 2008 Rule, like the 2005 Rule before it, eliminated many of these protections altogether, adopting discretionary goals instead. Yet, despite the *Citizens I* ruling that the 2000 Rule’s less sweeping changes from the 1982 Rule posed actual physical effects on the environment, and the *Citizens II* ruling that full NEPA compliance was necessary for the lawful adoption of the 2005 Rule, USDA prepared a NEPA document for the 2008 Rule that once again merely asserted without analysis that adopting a significantly weakened NFMA rule has no effects on the environment. Moreover, while the so-called “environmental impact statement” identified alternatives to the 2008 Rule, including the 1982 Rule and 2000 Rule, it asserted that none of these vastly different regulatory schemes had any impacts either. As a result, the EIS failed to offer any meaningful analysis of the differing impacts each of these regulatory systems would have on forest resources, precluding the comparison of their relative merits that is supposed to be the heart of NEPA analysis.<sup>25</sup>

With regard to the ESA, the court in *Citizens II* held that the 2005 Rule “may affect” listed species and their habitat given its potential indirect effects to listed species.<sup>26</sup> In outright defiance of that ruling, the Forest Service again failed to consult on the 2008 Rule with the expert wildlife agencies, but rather simply restated its position that revising the NFMA regulations would have no effects on listed species. Indeed, the Service took this approach in the face of warnings from the expert

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<sup>20</sup> *Citizens II*, 481 F. Supp. 2d at 1090.

<sup>21</sup> *Id.* at 1097.

<sup>22</sup> *Id.* at 1100.

<sup>23</sup> *Citizens for Better Forestry v. USDA*, 632 F. Supp. 2d 968 (N.D. Cal. 2009) (“*Citizens III*”).

<sup>24</sup> *Citizens III*, 632 F. Supp. 2d at 973.

<sup>25</sup> *See id.* at 980.

<sup>26</sup> 481 F. Supp. 2d at 1097.

National Marine Fisheries Service, which cautioned that it could not agree with the USDA's "no effect" determination, and that the court in *Citizens II* disagreed as well. Again, this approach could not withstand court challenge:

Although an agency may be excused from the ESA's consultation requirements if it concludes that its proposed action will have "no effect" on protected species, two courts have rejected USDA's argument that the programmatic nature of the plan development rule necessarily means that it will have no effect on the environment or protected species. The USDA has simply copied those rejected legal arguments in a new document and called it a "Biological Assessment." This is not sufficient to satisfy the ESA's requirements.<sup>27</sup>

The use of Science has changed throughout the history of the NFMA rulemaking process. For the first set of national forest planning regulations, NFMA required the convening of a Committee of Scientists, who were neither officers nor employees of the Forest Service, to provide scientific and technical advice and counsel on proposed forest planning guidelines and procedures.<sup>28</sup> The statute required the Committee of Scientists to be convened in order to carry out the purposes of Section 1604(g) of NFMA. For revisions to the planning rules, NFMA gives the Secretary the authority to reconvene the Committee.<sup>29</sup> The original Committee of Scientists conducted eighteen public meetings throughout the country during the year and a half it was convened, from May 1977 to January 1979.<sup>30</sup> During that first convening of the Committee, it offered assistance to Forest Service staff in drafting regulations, commented extensively on the initial draft, and prepared a final draft with comments and a summarizing report. In September 1979, the Forest Service adopted the Committee's recommendations.<sup>31</sup>

A Committee of Scientists was again convened for the process that resulted in the 2000 rule.<sup>32</sup> Yet the Forest Service chose not to convene a Committee for this rulemaking. Instead, the Forest Service produced an independent science review. The review, released on May 17, 2011, does not reach the same level of detail or provide the same support that has been demonstrated by Committees in the past. The review focused only on Chapter 3 of the DEIS, and framed questions so narrowly that it was difficult for the science panelists to review the scientific merits of the rule itself. While the information provided by the science review has been helpful in our review of the DEIS, it fails to provide a scientific evaluation of the rule itself, and therefore is not an adequate or acceptable replacement for a Committee of Scientist process.

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<sup>27</sup> *Id.* at 982.

<sup>28</sup> 16 U.S.C. § 1604(h)(1).

<sup>29</sup> *See id.* § 1604(h)(1).

<sup>30</sup> Oliver A. Houck, *On the Law of Biodiversity and Ecosystem Management* (Houck), 81 MINN. L. REV. 869, 889 n.64 (1997).

<sup>31</sup> *See id.*

<sup>32</sup> *See* U.S. Department of Agriculture, Committee of Scientists, *Sustaining the People's Lands: Recommendations for Stewardship of the National Forests and Grasslands into the Next Century* (Committee of Scientists) (1999).



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## I. Diversity of Plant and Animal Communities

Section 219.9, “Diversity of plant and animal communities”, and associated assessment and monitoring requirements found in §219.6 and §219.12 fail to meet the NFMA mandate to provide for a diversity of plant and animal communities and fail to affirm the Forest Service’s commitment to the viability of all species. The final rule must be strengthened to affirm the Forest Service’s commitment to the viability of all species in accordance with NFMA’s requirements.

### A. The proposed rule retreats from the agency’s commitment to the viability of all species in accordance with NFMA’s requirements

Maintaining viable populations of native species is the scientifically accepted method of achieving the conceptual goal to maintain species diversity. According to the 1999 Committee of Scientists Report “diversity is sustained only when individual species persist; the goals of ensuring species viability and providing for diversity are inseparable.”<sup>33</sup> The “diversity of plant and animal communities,” or ecological communities, cannot be maintained without maintaining the individual species that make up those communities. This is true logically as well as scientifically – ecological communities are the sum of the species that make them up, their interactions, and their environment. Failure to maintain the individual components of communities equals a failure to maintain the communities themselves and therefore the diversity of communities. The proposed rule generally ignores the fact that ecosystems and communities are comprised of individual species.

The proposed rule directs forest plans to “maintain the diversity of plant and animal communities” and to manage at the ecosystem scale “to maintain species diversity.” Viability is only required for “species of conservation concern”, a discretionary category of species which are not defined in the proposal. The concept of “species diversity”, which the agency claims will be the result of ecosystem management actions, is never defined for operational purposes and is therefore not measurable. While the proposed rule’s preamble espouses the goals of viability (stating that ecosystem management actions “should provide ecological conditions *for the long-term persistence of the vast majority of species within the plan area.*”<sup>34</sup>), actual rule language fails to establish this affirmative standard. The proposed rule contains no language to compel species-level viability analyses.

The proposed rule’s failure to provide an operational definition of “species diversity” cripples the effectiveness of the rule in meeting NFMA’s diversity mandate. Because the proposed rule fails to provide the set of validation tests that will be used to determine if species diversity objectives are being met, the rule fails to meet the NFMA mandate to provide for a diversity of plant and animal communities.

### B. The proposed rule departs from Forest Service history of implementing NFMA diversity mandate

The 1982 planning rule interpreted the diversity mandate as requiring the agency to ensure the persistence of species over time, stating that “fish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning

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<sup>33</sup> Committee of Scientists at 38.

<sup>34</sup> 76 Fed. Reg. 8492 (2011).

area.”<sup>35</sup> A viable population is defined as “one which has the estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area.”<sup>36</sup> The 1982 rule further requires that “habitat must be provided to support, at least, a minimum number of reproductive individuals and that habitat must be well distributed so that individuals can interact with others in the planning area.”<sup>37</sup>

Similarly, the 2000 planning rule also interpreted the NFMA diversity mandate as requiring the agency to ensure the persistence of species over time, stating that “Plan decisions affecting species diversity must provide for ecological conditions that the responsible official determines provide a high likelihood that those conditions are capable of supporting over time the viability of native and desired non-native species well distributed throughout their ranges within the plan area....”<sup>38</sup>

The 2000 regulations maintain the largely non-discretionary approach to implementing the diversity mandate and maintaining species. The 2000 regulations modified the 1982 viability requirement in a number of ways based on concerns about multiple approaches to determining viability and the limited amount of data available for most species. The 2000 regulations took the approach of selecting a limited number of focal species for which viability analyses would be attempted, and providing latitude for methods to be used that would be most appropriate to the taxa chosen.<sup>39</sup> They also proposed meaningful monitoring requirements that would help the Forest Service to determine its success both in selecting the right focal species, and in its efforts to forecast the viability of these species in the context of plan implementation.<sup>40</sup> The 2000 regulations were only in effect for seven months, however, before the Bush administration summarily suspended them without prior public notice or opportunity to comment.<sup>41</sup>

As noted earlier, the 2000 regulations moved the forest planning process in the direction of a greater utilization of ecosystem diversity (the “coarse-filter” approach described in conservation biology), and a more selective and structured use of population viability analysis for focal species (the “fine-filter” approach described in conservation biology). The fact that detailed viability assessments would still have been required under the 2000 regulations for some significant number of focal species is to be expected given that forest ecosystems are complex entities and their future condition under management direction cannot be reduced to ecosystem-level surrogates as a means of estimating the diversity of species. The weaknesses of the coarse-filter approach have been well documented, including a tendency to “overestimate the presence, and presumably, the viability of species on the planning landscape.”<sup>42</sup> Evaluating forest management through examination of population assessments and on-the-ground monitoring is needed to ensure implementation of the NFMA’s diversity mandate.

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<sup>35</sup> 36 C.F.R. § 219.19 (1982).

<sup>36</sup> *Id.*

<sup>37</sup> *Id.*

<sup>38</sup> 65 Fed. Reg. 67514, 67575 (2000).

<sup>39</sup> *Id.*, § 219.20(a)(2)(ii)(A)-(D).

<sup>40</sup> *Id.* § 219.11.

<sup>41</sup> 66 Fed. Reg. 27551 (2001); 66 Fed. Reg. 27555 (2001); 67 Fed. Reg. 35431 (2002) (all codified at 36 C.F.R. 219.35(b)).

<sup>42</sup> Barry R. Noon, et al., *Conservation Planning for US National Forests: Conducting Comprehensive Biodiversity Assessments* (2003).

Among the arguments presented as justification for rescinding the 2000 regulations and replacing the 1982 regulations with the proposed rule were (1) the potential for inconsistent application across the agency concerning the 2000 regulation’s analytical requirements and definitions for such things as species viability, population monitoring, and range of variation within the current climatic period; (2) the anticipated difficulty in complying with the 2000 regulation’s direction with regard to ecological sustainability and science consistency checks, and (3) the claimed difficulty and expense in implementing the 2000 regulation due to its perceived complexity.<sup>43</sup> Oddly, the remedy for the first of these ills, as embodied in the proposed rule, will guarantee inconsistent application across the agency because it leaves virtually all definitional and methodological decisions to the “responsible official”. In light of the tremendous importance of maintaining native species and ecological integrity on national forests, and the Forest Service’s long history of mandatory requirements and standards for doing so, the Forest Service must not retreat from measurable standards for wildlife and other ecological considerations in national forest planning, or relegate any remaining requirements to the Forest Service Manual and Handbook. Unfortunately, the proposed regulations do just this, without adequate justification, and are far inferior to both the 1982 and 2000 regulations.

## **II. Recommended Changes for Species Diversity**

### **A. §219.9(a): The coarse-filter must be strengthened so that it affirms a commitment to viability for all species**

The preamble to the proposed rule states that the coarse-filter “should provide ecological conditions *for the long-term persistence of the vast majority of species within the plan area.*”<sup>44</sup> In the DEIS the agency states that §219.9(a) “is intended to provide the ecological conditions and characteristics, at a variety of spatial scales, which support *the long-term persistence and resilience of a large majority of species and plant and animal communities within the plan area.*”<sup>45</sup>

The agency’s assertion that the rule will result in the long-term persistence of species, i.e. viability, does not ensure that that objective will be met. In fact, rule language does not support the agency’s assertion. The primary objective of the coarse-filter, “to maintain the diversity of native species” lacks definable and distinctive characteristics that would render it measurable, and is therefore non-enforceable. The ambiguity of the diversity language in §219.9(a) severs the inseparable twin goals of providing for diversity and ensuring species viability, and is a departure from the Forest Service’s commitment to the viability of all species in accordance with NFMA.

The coarse-filter is premised on an assumptive and uncertain relationship between ecosystems and species diversity that must be clarified in rule language. Importantly, this assumption must be validated through the use of a focal species assessment and monitoring program in order to address this uncertainty. The DEIS is contradictory in that it boldly states that the coarse-filter will provide for species diversity and for the persistence of species, while acknowledging that there is a high degree of uncertainty that it will achieve that result. For example the DEIS states that “the Agency’s ability to maintain or restore the necessary ecological conditions within a plan area needed to

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<sup>43</sup> 67 Fed. Reg. 72770, 72771-772 (2002).

<sup>44</sup> 76 Fed. Reg. 8492 (2011) (emphasis added).

<sup>45</sup> DEIS at 110 (emphasis added).

maintain the existing diversity and viability of all species native to those areas or contribute to viable populations of species whose populations extend beyond the plan area is uncertain.”<sup>46</sup> Elsewhere the DEIS states that coarse-filter “approaches are conceptual and have not been fully tested at a landscape scale over a long period of time. Thus, there is uncertainty as to the efficacy of these approaches to maintaining all species on those landscapes in the future.”<sup>47</sup> Nevertheless, the proposed rule fails to provide a mechanism to validate the underlying assumptions and uncertainty, which underpin the coarse-filter. Section 219.9(a) should be modified to reflect its purpose of providing for the viability for a large majority of species in the planning area.

The modifications to §219.9(a) should be based on the recommendations of the 1999 Committee of Scientists Report. That science endeavor, which remains as valid and applicable today as it was 10 years ago, rightly pointed out that the viability of any species under any particular management strategy is a probabilistic condition. According to the Committee of Scientists:

Any statement about the likelihood that a species will be viable under a management strategy should explicitly incorporate probability and time; that is, the likelihood that a species will be viable under a management strategy is measured along a continuum, in terms of some projected likelihood of persistence over a specified time period.<sup>48</sup>

The coarse-filter management strategy is designed to provide for species viability, yet fails to affirm that objective. Section 219.9(a) should be modified to align the language of the section with its stated purpose, and reaffirm the agency’s commitment to the viability of all species while recognizing the probabilistic and assumptive nature of the coarse-filter management strategy. We recommend a framework similar to that offered in the 2000 rule to best capture the intent of the management strategy. For example, a modified §219.9(a) could read:

The plan must include plan components to maintain or restore the structure, function, composition, and connectivity of healthy and resilient terrestrial and aquatic ecosystems and watersheds in the plan area, consistent with §219.8(a), to maintain species diversity such that there is a high likelihood that populations of native species will persist well distributed throughout their range in the planning area over time.

This language is consistent with how the agency portrays the coarse-filter in the DEIS. By creating an operational definition of diversity based on the distribution of species in the plan area, this proposed rule language provides for the development of effective plan components and more meaningful assessments of the ability of the coarse-filter to provide for diversity.

We urge the agency to take affirmative steps in the final rule to clarify that the intention of the coarse-filter is to provide for the long term persistence of species over time in the plan area; to provide for individual species viability. Clarifications would recommit the agency to providing for the viability of all species, and would better establish a meaningful adaptive management framework, in that the relevant assumptions could be explicitly tested and evaluated. Clarifying the purpose of the coarse-filter would also be more consistent as a complement the fine-filter. Finally, clarifying the

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<sup>46</sup> *Id.* at 103.

<sup>47</sup> *Id.* at 105.

<sup>48</sup> Committee of Scientists at 38.

coarse-filter would provide stakeholders with greater confidence in the legitimacy of Forest Service ecosystem management objectives and decisions.

**B. Focal species must be used to validate assumptions and evaluate effectiveness of the coarse-filter**

Clarification coarse-filter's diversity objectives must be accompanied by modifications to the role of focal species in the planning process. The failure of the proposed rule to validate assumptions and capture uncertainty associated with the coarse-filter can be repaired by giving greater prominence to the use of focal species in assessments, management decisions, and monitoring. As measurable representatives of diversity, the final rule must establish assessment and monitoring of focal species viability as means of establishing and demonstrating compliance with coarse-filter diversity requirements.

While the proposed rule suggests that “monitoring the status of selected focal species over time is intended to provide insight into the integrity of ecological systems on which those species depend and the effects of management on those ecological conditions (*i.e.*, the coarse-filter aspect of the diversity requirement),”<sup>49</sup> it fails to clearly employ focal species for that purpose and departs from the conventional scientific understanding of the role of focal species.

The 1997 Committee of Scientists provided the appropriate ecological context for the use of focal species in forest planning. According to the Committee of Scientists focal species are measurable representatives of diversity. That Committee found that focal species, which can be selected using a variety of approaches, are to be used to “monitor and to assess for viability.”<sup>50</sup> The proposed rule only requires monitoring the “status” of focal species; there is no obligation to evaluate their viability through assessments or monitoring, and therefore no obligation to meaningfully assess the objective to maintain species diversity through the coarse-filter. In addition, there is no feedback loop whereby the monitoring of focal species informs the substantive diversity requirements of the proposed rule. Failing to establish a management standard for focal species makes monitoring a paper exercise, fails to provide for any accountability, departs from conventional scientific understanding of ecological concepts, and limits the ability of the Forest Service to maintain its commitment to the viability of all species in accordance with NFMA's requirements.

Alternative D provides a more meaningful role for focal species in establishing the validity of the coarse-filter. We support inclusion of all of Alternative D's focal species language, including the requirement to conduct viability assessments for focal species (§219.6(b)(3)) as a means of providing “the basis for complying with §219.9(a).” We also support the monitoring requirements for focal species in Alternative D. The references to “presence/absence occupancy modeling” and “genetic monitoring” in Alternative D §219.12(ii) are important, and should be employed in the final rule. Alternative D also provides for a more robust use of focal species and is better suited to adaptive management. It requires the establishment of “critical values for ecological conditions and focal species that trigger reviews of planning and management decisions to achieve compliance with 219.9(a).”

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<sup>49</sup> 76 Fed. Reg. 8498 (2011).

<sup>50</sup> Committee of Scientists at 39.

The clearest means of establishing the appropriate role for focal species would be to include new language in §219.9(a). As an example, the following language could be inserted as §219.9(a)(1):

219(a)(1) For the purposes of evaluating the effectiveness of management actions in achieving healthy and resilient terrestrial and aquatic ecosystems and watersheds in the plan area, the regional forester shall designate focal species for which viability assessments and population surveys must be conducted and for which relationships to habitat changes must be determined. Forest supervisors may add focal species that are locally appropriate.

This language clearly establishes that assessing and monitoring the long term persistence of focal species is the means of evaluating the effectiveness of the coarse-filter plan components and management actions. It more clearly articulates the intent of the proposed rule by establishing “Composition based indicators” to allow for “measurements at the species level” with an emphasis on species distribution.<sup>51</sup>

We also recommend modifying the definition of “focal species” using Alternative D:

Species selected as compositional characteristics of ecosystem diversity, based on the best available science, for assessment and monitoring because their population status and trends are likely to be responsive to management actions to maintain or restore the structure, function, composition, and connectivity of healthy and resilient ecosystems, and provide reliable and meaningful information regarding the effectiveness of plan components in maintaining the diversity native species within the plan area. Species of conservation concern may be selected as focal species.

We believe that our recommended language better captures the stated purposed of focal species, is grounded in an understanding of current ecological concepts, and provides stakeholders with greater confidence in the legitimacy of Forest Service ecosystem management objectives and decisions.

**C. The coarse-filter suffers from numerous and significant definitional problems that will limit effective implementation of the rule**

The proposed rule fails to establish operational definitions for many aspects of the coarse-filter, which significantly weaken its effectiveness. In addition, the DEIS refers to management concepts that are not present in the proposed rule.

**1. Ecosystem characteristics**

Public confidence that the coarse-filter will result in biodiversity conservation is weakened by the lack of structure in how ecosystems are defined. For example it is not clear if species are considered a component of ecosystems. According to the DEIS, “Examples of compositional characteristics of ecosystem diversity include: distribution and extent of major vegetation types; *presence and distribution of invasive species*; and types of wetlands, lakes, streams, and ponds.”<sup>52</sup> The definition of ecosystem composition in the proposed rule, however, deviates from that found in the DEIS, where ecosystems are composed of “Major vegetation types, rare communities, aquatic ecosystems, and

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<sup>51</sup> DEIS at 107.

<sup>52</sup> *Id.* at 106 (emphasis added).

riparian systems.” The DEIS defines ecosystem composition as “the biological elements within the different levels of biological organization, from genes and species to communities and ecosystems.”<sup>53</sup> This is perhaps the most well recognized definition of ecosystem composition. Regardless of the sloppiness in defining ecosystems throughout the proposed rule and DEIS, it is our understanding that species are typically considered a component of ecosystems.

The proposed rule is ambiguous on how ecosystems will be characterized, despite an acknowledgement in the DEIS that defining ecosystems is paramount to effective planning and management. The DEIS states that:

Critical to the design of an effective coarse-filter is the classification of a planning area into biologically meaningful ecological communities. The ability of land management agencies to properly partition the landscape in an ecologically appropriate manner, given the dynamic nature of ecosystems and an accurate understanding of the historical range of variability, is problematic and injects a level of uncertainty into the overall effectiveness of the design (Haufler et al.1999).<sup>54</sup>

The design of the coarse-filter could be made more effective by including a definition of “ecosystem characteristics” in the proposed rule. The term plays a prominent role in the DEIS, for example in Chapter 3 it states that: “Under the proposed rule, an assessment (§219.6) of the ecosystem characteristics within the plan area is conducted as part of the planning process.” However, the term is not used at all in that context within the proposed rule, contributing to confusion about the intent, requirements, and implementation of the rule. We strongly recommend that the final rule include a definition for the term, and that focal species be considered as “compositional characteristics of ecosystem diversity” as described by the DEIS on page 106. This would go a long way in reducing the ambiguity of the rule and provide a mechanism to validate the assumptions behind the coarse-filter.

## **2. The concepts of resiliency and health are ill-defined and will limit effective rule implementation**

Resiliency is an emerging concept in Forest Service policy and we agree that it is a useful management paradigm. However, we are concerned that the lack of an operational definition may hinder the use of the concept in forest planning, management and evaluation. An essential premise of the concept is related to ecological thresholds, which naturally requires measurement and quantification. The definition provided in the proposed rule recognizes this concept: “The capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity, and feedbacks.”<sup>55</sup> The agency’s ability to manage for resiliency is dependent on its ability to identify when ecological thresholds are at risk of being crossed. This is also the bedrock of adaptive management. However, the proposed rule provides no structured process for evaluating resiliency. How will a manager know if an ecosystem is resilient or not? How will she define the essential functions and structures of an ecosystem? What role will science and scientists play in making these critical determinations? Leaving these questions to the

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<sup>53</sup> *Id.* at 57.

<sup>54</sup> *Id.* at 105.

<sup>55</sup> 76 Fed. Reg. 8492, 8524 (2011).



discretion of the agency undermines public confidence in the agency's restoration agenda and the proposed planning rule.

The definition of "health" in the proposed rule is also problematic from an implementation perspective. According to the definition, a system's health is measured in degrees and is "related to the completeness or wholeness of the composition, structure, and function of native ecosystems existing within the inherent capability of the land." Like resiliency, the agency's definition implies that health will be measured according to ecosystem characteristics related to the system's composition, structure and function. Again we recommend a definition for "ecosystem characteristics" and remind the agency that species are a component of ecosystems whose status can be evaluated.

The concept of "the inherent capability of the land" is used in the definition of "health" which suggests that ecosystems can only provide a limited degree of health. We are concerned that the failure to define how such thresholds will be determined limit the effectiveness and undermine public confidence in the implementation of the rule. The concept of ecological integrity and its measurement, including through the use of focal species, are well established in the scientific literature and we recommend that the final rule reduce the level of ambiguity in these definitions by providing an understandable means of measuring ecosystem health and resilience.

We understand that the agency is soon to invite public comment on Forest Service Manual (FSM) 2020—Ecological Restoration and Resilience. We look forward to providing comments on this critical policy area. We would argue however that the Forest Service Directives System is not the appropriate venue to make critical forest planning policy decisions. As discussed elsewhere in this letter, we are concerned that the unenforceability of the Directives System will result in ineffective policy decisions.

The proposed rule's use of a non-operational definitions for health and resilience, coupled with a failure to define "ecosystem characteristics" for assessment and monitoring and a weak role for focal species results in low confidence in an apparently ineffective coarse-filter. Rather than emphasizing species diversity as an outcome of resiliency, the agency should consider species diversity as a driver of resiliency and therefore place more emphasis on managing for viable populations of focal species in forest plans. Broad liberty to define focal species as indicators of resilient forest systems and manage for their long-term persistence is a valid means of managing for health and resiliency by focusing on the elements of ecosystems that can be effectively measured.

### **3. Historical Range of Variability**

The DEIS provides a substantial discussion of the application of historical range of variability (HRV) assessments "as an approach to define a range of ecological conditions that maintain biodiversity over large landscapes."<sup>56</sup> The DEIS correctly points out that the 1999 Committee of Scientists report led to the inclusion of HRV as an operational concept in the 2000 planning rule. We support the use of HRV as a science-based empirical method for assessing the condition of ecosystems and for developing management actions. The 2000 rule incorporated the concept throughout the rule, for example by stating that "Plan decisions affecting ecosystem diversity must provide for maintenance or restoration of characteristics of ecosystem composition and structure

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<sup>56</sup> DEIS at 59.

within the range of variability expected to occur under natural disturbance regimes...<sup>57</sup> The 2000 rule also provided a definition of HRV.

Despite the discussion in the DEIS, the proposed rule contains no mention of the term “historic range of variability” and we are therefore confused over how the concept fits into implementation of the proposed rule. The proposed rule states that “Specific agency policy direction for ecosystem diversity and species conservation using the coarse-filter/fine-filter approach, as well as for identifying species of conservation concern would be included in the Forest Service Directive System.”<sup>58</sup> The deferment of the development of critical diversity policy to the Directive System delays the definitive determination of whether HRV assessments will be employed in implementation of the planning rule. Our concerns over making critical diversity policy decisions in the Directive System have been expressed. We strongly recommend that the agency provide greater detail on how ecosystems will be assessed and monitored, including whether the agency intends to use HRV assessments. The proposed rule provides the public with little confidence that non-discretionary standardized approaches will be used to make these critical decisions.

#### **4. Connectivity**

According to the proposed rule, “connectivity”, as used in the coarse-filter, is defined as “habitats that exist for breeding, feeding, or movement of wildlife and fish within species home ranges or migration areas.” The definition is clearly species focused rather than ecosystem focused and is therefore incongruent with the coarse-filter, contributing to the ambiguity of the proposed rule. Because it is oriented towards particular species, the definition is not likely to be useful from an operational perspective. When developing plan components to restore the connectivity of a resilient ecosystem, will the responsible official target habitat for the breeding, feeding or movement of specific species? If not, will that manager do so for all species? If so, how would those species be chosen? The DEIS fails to adequately discuss the concept of connectivity, although it references “landscape pattern and connectivity”<sup>59</sup>, a different concept than that expressed in the definition provided in the proposed rule. More clarity is required in the final EIS and final rule. We reiterate our recommendation to define for operational purposes “ecosystem characteristics.”

#### **D. Comments on the fine-filter §219.9(b)(3)**

##### **1. Protections For Threatened, Endangered and Candidate Species**

We strongly support the requirement to contribute to the recovery of threatened and endangered species listed under the Endangered Species Act; indeed, it is essential to the Forest Service carrying out its affirmative conservation obligation pursuant to Section 7(a)(1) of the Endangered Species Act.<sup>60</sup> We are especially pleased to see that the agency has used its policy discretion to take proactive measures to reduce risks to candidate species. We believe that a higher level of protection for candidate species is necessary given the enormous backlog of warranted ESA listings that have been precluded due to insufficient funding. Public lands should remain the first line of defense in preventing species extinctions.

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<sup>57</sup> 65 Fed. Reg. 67514, 67575 § 219.20(b)(1) (2000).

<sup>58</sup> 76 Fed. Reg. 8432, 8492 (2000).

<sup>59</sup> DEIS at 57.

<sup>60</sup> 16 U.S.C. § 1536(a)(1).

## 2. The rule language in §219.9(b)(3) does not meet the stated purpose of the section

The “fine-filter” found in §219.9(b)(3) requires inclusion of plan components to “provide for the maintenance or restoration of ecological conditions in the plan area to maintain viable populations of species of conservation concern within the plan area.” Section 219.9(b)(3) does not meet the stated purpose of the section nor the agency’s own interpretation of the role of the fine-filter in the conservation of biodiversity.

According to the preamble to the proposed rule, the purpose of the fine-filter is to “identify specific habitat needs of species with known conservation concerns or whose long-term persistence in the plan area is at risk, and for which the coarse-filter protection is insufficient” and to “provide plan components that identify specific habitat needs of species, when those needs are not met through the coarse-filter.”<sup>61</sup> The DEIS interprets the purpose of this section as necessary because “the life requirements for some species might not be fully addressed under the coarse-filter approach alone” and “a complementary fine-filter approach might be needed and be possible to use for some species to serve as a ‘safety net’”.<sup>62</sup> The DEIS mischaracterizes the proposed rule by stating that language will direct “plans to examine the efficacy of the ecological conditions provided under the ecosystem diversity (coarse-filter) requirement in...maintaining the viability of other identified species of conservation concern.”<sup>63</sup> In our interpretation of the rule’s requirements, no such mechanism is provided for. Neither §219.9(b)(3) nor any language in §219.6 provide a reliable mechanism to “identify” species with known conservation concerns or to assess the “insufficiencies” or “examine the efficacy” of the coarse-filter in providing for the long term persistence of species. Clearly the DEIS interprets the requirements and expected implementation of the proposed rule differently than do we, a pervasive problem with ambiguous rule language that foreshadows significant implementation problems.

What the proposed rule actually requires is for plan components to be developed only for species for which the responsible official makes a determination “that there is evidence demonstrating significant concern about (a species) capability to persist over the long-term in the plan area.” This definition of species of conservation concern provides no certainty that species whose long-term persistence in the plan area is at risk will be identified, and makes no reference to an assessment or process for examining the efficacy or sufficiency of the coarse-filter. In fact, the reader is forced to go to great lengths to logically interpret the language and definitions associated with §219.9(b)(3) in the same way as the agency.

The presence and stated purpose of the fine-filter in §219.9(b)(3) clearly confirms that the intent of §219.9(a) is to provide for species viability. Applying a viability standard to species “for which coarse-filter protection is insufficient” indicates that the purpose of the coarse-filter in §219.9(a) is to provide for the viability of all species, reinforcing the agency’s clear error in drafting that language. There can be no determination of “species for which the coarse-filter protection is insufficient” without determining if the coarse-filter is sufficient in providing for species viability. This logic flaw reinforces our argument to clarify the intent of the coarse-filter in providing for the long term

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<sup>61</sup> 76 Fed. Reg. 8492, 8492-93 (2011).

<sup>62</sup> DEIS at 110.

<sup>63</sup> *Id.*

persistence of species. In addition, language in the DEIS that asserts that “assessments would identify the ecological conditions needed to support all native species within the plan area” should be clarified in the final rule. Language in §219.6 should be clarified to include complementary assessments of the coarse and fine-filter conservation strategies in providing for diversity and viability of all species.

### **3. Recommended changes to §219.9(b)(3)**

Given that the purpose of the coarse-filter is to develop ecosystem based plan components that have a high likelihood of providing for the persistence of the vast majority of species in the planning area (i.e. viability), we interpret the purpose of §219.9(b)(3) as providing targeted species level plan components for populations for which viability is a concern and whose viability is not likely to be ensured under the coarse-filter. To effectively meet this purpose, the fine-filter needs to be strengthened by establishing a mandatory process for the identification, assessment, monitoring and development of plan components to provide for the viability of species of conservation concern.

While the preamble to the proposed rule suggests a defensible method for identifying these at-risk species<sup>64</sup>, that method is not included in proposed rule language. The preamble suggests that selection of species of conservation concern:

could be based on several criteria, such as substantial scientific information as to the overall status of the species, the quantity and quality of species habitat within the plan area, and the potential for management activities to affect the species habitat within the plan area.<sup>65</sup>

Rather than spelling out these criteria in the Forest Service Directives, the planning rule should prescribe a scientifically rigorous, systematic, and consistent approach to identify species of conservation concern. The agency has suggested a two-part regional/local process for selecting species of conservation concern that we believe makes good sense. Unfortunately, the draft rule gives no hint of that process; instead it appears to give complete authority to the local forest supervisors, which we do not consider appropriate. To ensure consistency of method and promote efficiency, the regional forester should determine the list of species of conservation concern that are imperiled across the Region and would automatically be included in all forest and grassland plans where those species exist. Forest supervisors may add species of concern based on, for example, the potential for local management activities to affect populations or local population trends of species that are not at risk elsewhere in the region. Having regional foresters select species of concern is consistent with the current practice of the Region choosing Forest Service “sensitive species.”

In addition to establishing a means for identifying the species of conservation concern within the planning area, the final rule must include a process for assessing and monitoring the viability of these species in a manner that complements the coarse-filter. The preamble to the proposed rule states that “the responsible official would identify, where necessary, specific ecological conditions needed by these species that are not provided by the coarse-filter.”<sup>66</sup> This requires a mandatory assessment. Requiring an assessment of the “ecological conditions required to support viable populations of native species within the plan area” as directed under Alternative D §219.6 would

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<sup>64</sup> 76 Fed. Reg. 8492, 8493 (2011).

<sup>65</sup> *Id.*

<sup>66</sup> *Id.*

facilitate determinations of whether to meet plan diversity and viability requirements via coarse or fine-filter plan components. In addition, Alternative D's requirement to assess and determine the "current and likely future viability of focal species in the planning area" will assist in making determinations concerning the development of targeted plan components for species of conservation concern, given the revised definition of focal species which states that species of concern may be selected as focal species. The final rule should clarify that assessment and monitoring of focal species must be sufficient to evaluate the viability of species of conservation of concern within the planning area.

**E. Extension of Viability Requirements to All Plants and Animals**

NFMA requires the agency to provide for the diversity of *all* plant and animal communities, not merely for vertebrate species and trees. Because invertebrates, shrubs, and herbaceous vegetation make up a large proportion of the diversity of a given ecosystem and perform numerous crucial ecosystem functions, we applaud the agency's decision to broaden the scope of the viability provisions to address imperiled plants and invertebrates, as well as vertebrates, within the plan area.

**F. Modifications to definition of viability**

The proposed rule must be amended to restore the requirement, in place for decades, that Forest Service managers ensure species are "well distributed" across the forest. The proposed rule abandons that mandate. Due to definitional ambiguity, it is not clear what level of protection the definition of "viable populations" affords a species. Under the proposed rule, a population's viability is based on an undetermined relationship between the population's distribution and the population's ability to be "resilient and adaptable". Because the terms "resilient and adaptable" are not adequately defined, it appears that a local forest could determine at its discretion when a population is sufficiently distributed to meet the viability standard. The definition of "viable population" in Alternative D is better suited to measurement and evaluation and is more in line with accepted scientific understanding of the concept. The concepts of resiliency and adaptability are useful, and should be carried over into this definition:

A population that has a high likelihood of persisting well distributed throughout its range within a planning area for a period of at least 50 years into the future, based on the best available scientific information on its ecological conditions, abundance, distribution, reproduction, and survival rates.

Wildlife, especially the imperiled wildlife designated as species of concern, are more resilient in the face of climate change and other threats when their populations are well distributed. The requirement to manage for well-distributed population must be restored to the rule.

**G. Extrinsic conditions**

Because there are cases when factors beyond the agency's control affect the agency's ability to provide for viability, a reasonable "extrinsic conditions" clause is good policy. However, the proposal introduces an undefined and discretionary application of this policy that undermines the legitimacy of the proposed rule.

Alternative D provides a solution to this problem by providing for a science based mechanism to make these policy determinations. Section 219.6, Assessments, is the logical place to include a requirement to assess the agency's ability and the "inherent capability of the land" in meeting diversity requirements. Such an assessment would be compatible with language in the DEIS that states that assessments "would identify the ecological conditions needed to support all native species within the plan area,"<sup>67</sup> allowing for an assessment to indicate when it was impossible to provide these conditions.

Language in Alternative D under §219.9(b) "Extrinsic Conditions" should be modified and applied to the preferred alternative. In addition, modifications to the assessment language in §219.6 should be made to require assessments of the "inherent capability of the land" as it pertains to §219.9. Modifications to language in §219(b)(3) based on principles found in Alternative D should look like this:

Where it is beyond the authority of the Forest Service, or where best available science or assessments conducted under §219.6 indicate that it is beyond the inherent capability of the land to do so, the plan components must provide for the maintenance or restoration of ecological conditions to contribute to the maximum extent practicable to maintaining a viable population of a species within its range and ensure that any activity authorized, funded or carried out within the planning area does not increase the likelihood of extirpation of the population in the planning area.

Defenders also strongly supports the inclusion of language in Alternative D §219.4(c)(1) "Coordination for species viability," which requires management coordination for populations that are distributed across planning areas.

#### **H. Interagency coordination**

The proposed rule misses an opportunity to foster regional coordination for imperiled species facing regional-scale threats like climate change. Although the rule directs forest plans to consider their regional context, no provision is made for the coordination of a regional plan, implemented through forest plans and project decisions, for the protection of imperiled species. The impacts of climate change, in particular, are effectively assessed and evaluated at the regional scale. Landscape-scale planning is especially important for species which range across multiple national forests, are impacted by activities across forests, or require or benefit from large tracts of unfragmented, mature forest.

Habitat planning by state agencies is a critical tool for coordinating an all-lands strategy that has historically underutilized by the Forest Service. The final rule should look to state natural heritage area programs, state wildlife action plans, and state lists of rare species and communities as guidance for framing diversity objectives in an all-lands context. There is no reason for the Forest Service through the planning process to duplicate the work done by state wildlife and heritage area programs to catalogue and assess exceptional or rare communities and species. Rather, such state designated priorities should be given substantial and specific weight in the crafting and implementation of forest plans. Forest plans should include findings that they are consistent with state agency plans

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<sup>67</sup> DEIS at 111.

and priorities, or explain in clear terms why the Forest Service has chosen to adopt an inconsistent course.

Defenders strongly supports the inclusion of language in Alternative D §219.4(c)(2) and (3) as a means of enhancing the agency's ability to maintain species diversity and interagency coordination for species and ecosystem conservation.

**I. Proposed rule fails to meet expectations of NFMA Committees of Scientists, especially regarding limiting discretion**

The proposed rule continues the previous administration's practice of developing forest planning rules without the input of an independent Committee of Scientists. The 1982 and 2000 NFMA regulations were developed with formal input from a Committee of Scientists. All of these Committees have recognized the need for substantive restrictions on what land managers can do, as well as requirements for what they must do to meet, for example, the NFMA diversity mandate.

NFMA required the convening of a Committee of Scientists to provide guidance and input on development of the regulations for implementing NFMA.<sup>68</sup> The Committee of Scientists, charged by the statute to inform the promulgation of the regulations, supported limitations on agency discretion. The goal in requiring a Committee of Scientists was to create strong, science based regulations.<sup>69</sup> The Committee of Scientists requirement was included in NFMA partly to ensure that congressionally intended constraints on logging would occur, in order to protect other interests such as biological diversity.<sup>70</sup>

The original Committee of Scientists conducted eighteen public meetings throughout the country during the year and a half it was convened.<sup>71</sup> The final recommendations of the Committee to have more detailed and specific regulations rather than broad grants of discretion to the agency were based on concerns that the "lure of monetary returns' would continue to produce 'biological deserts' and 'unstable forest communities,'"<sup>72</sup> as well as concerns that such regulations were necessary for the agency to meet the diversity mandate. The Committee called for specificity in its report on its draft regulations, comparing them to the draft regulations developed by the Forest Service when it wrote:

§219.10 contains language intended to meet some of the most difficult and demanding requirements of RPA/NFMA. Therefore, adequate regulations in this section are mandatory. Although the language of the draft regulations is a reasoned approach by the Forest Service...it often falls short of the specificity necessary to establish appropriate guidelines and standards in these critical and controversial areas.<sup>73</sup>

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<sup>68</sup> 16 U.S.C. § 1604(h)(1) ("The committee shall provide scientific and technical advice and counsel on proposed guidelines and procedures to assure that an effective interdisciplinary approach is proposed and adopted.")

<sup>69</sup> Houck at 887.

<sup>70</sup> *Id.*

<sup>71</sup> *Id.* at 889.

<sup>72</sup> *Id.* at 888.

<sup>73</sup> *Id.* at fn. 69.

The Committee of Scientists concluded that “the regulations should go beyond a narrow and limited restatement of the [NFMA] language...to assure that the Forest Service shall indeed 'provide for' diversity.”<sup>74</sup>

The 1997 Committee of Scientists convened to revise NFMA regulations concluded that species viability was integral to sustainability and recommended retaining a strong viability requirement and making it applicable to all native species. Their recommendations were consistent with a growing body of literature demonstrating that (1) species other than vertebrates play critical roles in forest ecosystems, and (2) contemporary forestry practices can be harmful to certain species of invertebrates, lichens, and fungi that perform critically important functions involved in the maintenance of ecosystem processes and forest health. Several members of the 1997 Committee of Scientists have expressed great concern about the current proposed rule and its failure to address the recommendations previously made by the Committee.

The Committee was prescriptive in providing guidelines for viability emphasizing that the agency switch from a Management Indicator Species approach (established under the 1982 planning regulations) to a “focal species” approach involving population viability risk assessments for select taxa indicative of ecosystem processes and habitat conditions useful in monitoring and adaptive management. A chief concern of the Committee was the agency’s lack of monitoring and compliance with NFMA provisions due to concerns the agency had regarding the need for more access to scientists to assist with determining how best to maintain viability. The Committee recognized this need and recommended that the Forest Service work with scientists to bridge this gap. Rather than abandon this process, as the proposed rule proposes, the Forest Service should follow through with the Committee’s recommendation. This would help with making improvements to analytical procedures and management standards, which are vaguely presented in the proposed rule. Implementation of the proposed rule’s nebulous approach to diversity will pose major credibility problems with performance standards regarding viability.

### **III. Climate Change**

The climate change related components of the proposed rule must, at a minimum, comply with Forest Service policy on climate change, including the National. The final rule can do this by incorporating climate considerations at each stage of planning and in the development of all plan components. We recommend the following changes to the rule, which are discussed in detail below

- Must include in the assessments phase of the planning process an assessment of the vulnerability of ecological conditions, ecosystem characteristics, watersheds, focal species and species of conservation concern to the impacts of climate change,
- Must clarify how climate will be “taken into account” and “considered” in the rule and expand consideration to species diversity and suitability, and
- Must describe climate monitoring requirements more clearly

The “National Roadmap for Responding to Climate Change”<sup>75</sup> created four dimensions on which progress will be measured, including adaptation. Within the adaptation dimension, the roadmap

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<sup>74</sup> 44 Fed. Reg. at 26609.



requires the Forest Service to assess vulnerability, set priorities, and monitor change.<sup>76</sup> These are fundamental components of the planning process and we recommend that the planning rule be fully in compliance with this policy. Specifically this means that climate vulnerability assessments must be required.

Forest Service climate policy requires that climate vulnerability assessments for all ecosystem components be required by the final rule. The Climate Roadmap states that

[t]o address the risks and vulnerabilities associated with climate change, land managers will need science-based assessments of the relative vulnerability of all ecosystem components and their ability to adapt to increased stress. These assessments will help managers set priorities in maintaining healthy, resilient ecosystems and protecting communities and infrastructure. Basing their decisions on such assessments, land managers can avoid fragmented, piecemeal approaches and make cost-effective investments.<sup>77</sup>

This language is clear; forest managers cannot respond to climate change without an understanding of the threats to the resources they manage. The Roadmap also directs the Forest Service to “[a]ssess the vulnerability of species, ecosystems, communities, and infrastructure and identify potential adaptation strategies” and to “assess the vulnerability of threatened and endangered species and to develop potential adaptation measures.”<sup>78</sup> These important assessment goals can be addressed in this planning rule. However, the proposed rule just touches on the importance of stressors, including climate change, but it fails to mandate that climate threats to resources like wildlife be completed in the assessment phase. This must be remedied in the final rule.

Consideration of climate in the planning rule must be clarified throughout the substantive sections. The Climate Roadmap addresses planning directly, requiring the Forest Service to

Address climate change in planning and analysis by doing the following:

- Incorporating climate-related vulnerabilities and uncertainties into land management and project-level environmental analyses.
- Discussing how a range of uncertain future climate conditions might affect the expected consequences of proposed activities.<sup>79</sup>

In the proposed rule, climate change is required to be “taken into account” when developing §219.8 ecosystem plan components and “considered” under §219.10 integrated resource management plan components. While it is important that climate be included in each of these sections, it is unclear what is meant by “taken into account” and “considered.” Does this mean that assessments of climate threats on these resources would be done and included in decisionmaking? Could a responsible official consider but then ignore climate issues? This language must be made stronger or more clearly defined to guarantee that climate and other stressors cannot be ignored.

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<sup>75</sup> U.S. Forest Service, National Roadmap for Responding to Climate Change (2010), available at <http://www.fs.fed.us/climatechange/pdf/roadmap.pdf>.

<sup>76</sup> *Id.* at 3.

<sup>77</sup> *Id.* at 7.

<sup>78</sup> *Id.* at 10-11.

<sup>79</sup> *Id.* at 27.

The inclusion of climate specifically in §219.8 and §219.10 begs the question of whether climate would not be considered in other parts of the rule where it is not mentioned directly. Specifically, the implementation of §219.9 – Species Diversity will be profoundly affected by climate change moving forward and it is a gross oversight that climate is not addressed directly in the section. It is also of great concern that there is no mention of climate in §219.11 – Timber requirements based on NFMA, considering the dramatic effect on climate change that timber harvesting can have and the need to consider climate impacts on forests when determining suitability for harvesting. Climate should be addressed directly in §219.9 and §219.11.

The final rule must clarify climate monitoring requirements. The Climate Roadmap includes monitoring as an important activity for adaptation, stating that

Monitoring will be key to the program’s success. Monitoring paves the way for assessments to be updated and validated, revealing critical new issues. A unified, multiscale monitoring system capable of detecting and evaluating national, regional, and local trends will enable land managers to develop and adjust adaptation and mitigation strategies to improve their effectiveness across landscapes and landownerships.<sup>80</sup>

The Forest Service independent science review, however, noted gaps in monitoring related to climate change in the proposed rule, stating that

One scientific gap in the EIS in the Climate Change section is the lack of acknowledgement of monitoring soils for carbon storage to complement the emphasis (in the EIS and planning rule) on aboveground vegetation. Another issue for consideration is how the FS will achieve the actual goals of making lands more resilient to climate change versus “simply” gathering more information. For instance, how will they incorporate best science into decisions about habitat connectivity and dispersal corridors? How can they maximize connectivity (where desirable) while minimizing economic costs?<sup>81</sup>

The climate monitoring questions in the proposed rule are vague, and it is unclear how they would be employed to achieve the goals of Forest Service policy.

The first climate monitoring question is “[m]easurable changes on the unit related to climate change and other stressors on the unit.” (§219.12(a)(5)(v)). This language is unclear on what types of changes are to be monitored. It is also unclear how this information will be used to guide management moving forward. Both of these ambiguities must be resolved. The Climate Roadmap requires the following, which we recommend be incorporated into this monitoring question: “Tailor monitoring to facilitate adaptive responses: Target individual species, populations, and ecosystems at risk, linking the results to adaptation and genetic conservation efforts.”<sup>82</sup>

The second climate monitoring question is “[t]he carbon stored in above ground vegetation.” (§219.12(a)(5)(vi)). This monitoring question will provide great information, but it is unclear how the information will be used. Would a decrease in the carbon stored in above ground vegetation due

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<sup>80</sup> *Id.*

<sup>81</sup> Science Review at 17.

<sup>82</sup> National Roadmap at 10-11.

to disturbances or other stressors lead to changes in management to maintain or increase carbon storage? The use of information from this monitoring question must be clarified in the final rule.

#### **IV. Section-by-Section Comments**

Our section-by-section comments on the proposed rule are intended to provide revisions for a stronger adaptive management framework that can ensure the protection and enhancement of species diversity on the national forests. These comments are presented in the order in which they appear within the proposed rule.

##### **A. §219.3 - Role of Science in planning**

The final rule must establish a more structured framework for the application of science information in forest planning and decisionmaking. The proposed rule directs that the responsible official must “take into account” the best available science in planning and requires them to “determine what information is the most accurate, reliable, and relevant to a particular decision or action. The responsible official shall document this consideration in every assessment report (§ 219.6), plan decision document (§ 219.14), and monitoring evaluation report (§ 219.12).”

The application of science information to planning could be better structured than presented in the proposed rule and provides the responsible official with a great deal of latitude in determining what types of information to apply to planning decisions. The 2000 rule provides a more structured approach that is better suited to forest planning. For example, the 2000 rule required the responsible official to ensure that the best available science was considered in the planning process, while acknowledging risks and uncertainties;<sup>83</sup> required the responsible official to provide for the use of independent, scientific peer reviews;<sup>84</sup> and defined the role of science in broad-scale assessments, local analyses, and monitoring.<sup>85</sup> It required that the responsible official include scientists in the design and evaluation of monitoring strategies and provide for an independent, scientific peer review of plan monitoring on at least a biennial basis.<sup>86</sup> Further, the 2000 rule required that plan revisions and plan amendments be “consistent” with the best available science, allowing the responsible official to use a science advisory board to assist in making this determination<sup>87</sup> and mandated the use of a national science advisory board and regional science advisory boards. Even the 1982 planning rule required interdisciplinary planning teams to “integrate knowledge of the physical, biological, economic and social sciences...in the planning process.”<sup>88</sup> That rule also specified how science was to be incorporated into fish and wildlife management.<sup>89</sup>

The proposed rule provides too little clarity and direction on whether and how scientific information will be applied to decision making. Providing this discretion effectively diminishes the clear role for science information in planning, and undermines public confidence and perceived legitimacy of the

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<sup>83</sup> See 36 C.F.R. § 219.22(a) (2000).

<sup>84</sup> See *id.* § 219.22(b).

<sup>85</sup> *Id.* § 219.23.

<sup>86</sup> *Id.* § 219.23(c).

<sup>87</sup> *Id.* § 219.24.

<sup>88</sup> 36 C.F.R. § 219.5(a) (1982).

<sup>89</sup> See *id.* § 219.19.

planning rule. The final rule should be modified to ensure that science information is consistently and fairly applied to forest planning decisions.

## **B. §219.5 – Planning Framework**

The final rule must close the gaps in the proposed rule’s planning framework. To facilitate true adaptive management, the final rule must provide for the development of consistent, explicit and measurable criteria to indicate the need to modify plans. The proposed rule states that “[t]he intent of this framework is to create a responsive and agile 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.” However, we are concerned that this goal will not be accomplished using the framework as it is laid out in this section and as it relates to the other sections of the proposed rule. The potential pitfalls of a poorly structured adaptive management approach were identified in the Forest Service independent science review:

Efficacy of this adaptive framework is largely dependent on three factors: the elements subject to monitoring, the rigor and design of the monitoring program, and the manner in which monitoring information is used to modify plans and actions...The DEIS states: Measuring and monitoring key ecosystem characteristics related to composition, structure, function, and ecological connectivity along with a set of well-chosen focal species should provide timely information regarding the implementation and effectiveness of plan components related to plant and animal diversity and species viability.

This statement is accurate only if monitoring is targeted to track specific ecological components that relate to the effectiveness of the plan to conserve plant and animal populations, and if there are explicit mechanisms for invoking plan modification when monitoring data indicate it is prudent to do so...

The lack of direct reference to triggers or thresholds for action based on monitoring data in Alternative A could jeopardize the scientific validity of the adaptive framework of the planning rule. Although Alternative A does not preclude meaningful application of the adaptive framework in planning, neither does it mandate its scientific validity or efficacy because of the broad, non-prescriptive guidelines provided in the planning rule. Explicit linkage to identification of triggers and thresholds, such as those proposed in Alternative D, would significantly strengthen the scientific integrity of Alternative A, and would facilitate appropriate selection of response variables to be monitored, and the metrics used for monitoring them.<sup>90</sup>

What the science review reveals is that adaptive management is only successful within a clearly structured and defined framework that lays out thresholds that trigger the transition from monitoring into assessment and revision. Additional comments for repairing this framework are provided in the sections below.

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<sup>90</sup> U.S. Forest Service, Science Review of the United States Forest Service Draft Environmental Impact Statement for National Forest System Land Management (Science Review) at 10 (2011), *available at* [http://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5295052.pdf](http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5295052.pdf).

### C. §219.6 – Assessments

Assessments are a fundamental component of successful planning and we would argue that effective information management is the key to effective forest planning. Assessments must be policy relevant; they must target specific management variables that will be used in decision-making and monitoring to prevent forest managers from “managing blind.” Generic assessments which fail to specify critical areas for analysis will fail to yield high returns on investment and may not effectively support management decisions. In order to develop legitimate science-based plans that are less likely to face challenges or create on the ground conflicts, targeted information and analysis must be gathered up front. The proposed rule fails to prescribe meaningful assessments that will contribute to effective forest planning and decision-making. As expanded upon below, the final rule must include the following changes:

- Assessments must determine the ecological conditions needed to support all native species within the plan area, in line with statements made in the DEIS.<sup>91</sup> This requirement is provided under Alternative D.
- Viability assessments must be required for focal species and species of conservation concern. The requirement to conduct viability assessments for focal species is included in Alternative D. Focal species should be defined as a compositional characteristic of ecosystem diversity. Other characteristics of ecosystem diversity should be clearly defined and prescribed for assessment and monitoring.
- Vulnerability assessments must be completed for ecosystem characteristics, ecological conditions, watersheds, focal species and species of conservation concern to determine the risks faced by climate change (see the section on climate change for further discussion of this).
- The Forest Service must do its work and show its work – assessment reports must comprehensively reflect the assessments completed and include all of the information gathered and analyzed. Assessments must be effectively used in the development of plan components and plan amendments, and this work must be shown as well.
- The Forest Service should not preclude the generation of new information when it is necessary to complete an assessment that is required to inform a plan revision or amendment.
- Assessments of the “inherent capability of the land” must be must be required in order to develop plan components under §219.9.

The final rule must make assessment content mandatory and guide assessments to match the size and scope of the action. This will provide parameters to aid responsible officials in generating successful assessments to avoid conflict at the local level. Section 219.6 states that the assessment “*should* consider relevant ecological, economic, and social conditions, trends, and sustainability within the context of the broader landscape.” We would submit that the most important word in this clause is “relevant.” Rather than allowing the responsible official to make the determination of what is relevant, the rule should prescribe the relevant variables, i.e. those that are central to making management decisions to meet plan requirements, for example by assessing ecological conditions necessary to support all native species in the plan area. This certainly seems like a relevant ecological assessment that may or may not occur under current rule language. Adaptive management systems

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<sup>91</sup> DEIS at 111.

based on assessment, information-based action and monitoring must contain target variables that will be consistently assessed, planned for, and monitored. The proposed rule is woefully inadequate to support any defensible form of adaptive management premised on this type of assessment language.

This list of considerations must be made mandatory in the final rule in order to create certainty about the content of future assessments. This provision also states that “[t]he responsible official has the discretion to determine the scope, scale, and timing of an assessment.” This level of discretion is unnecessary – instead this section should guide assessments to match the size and scope of the action and provide parameters to aid responsible officials in generating successful assessments. Not only will this generate better, stronger assessments, but it will also reduce conflict because the public will know what to expect and the responsible officials will know clearly what is expected of them in the assessment process.

The final rule must require assessment reports to be comprehensive. The proposed rule states: “Document the assessment in a report or set of reports available to the public.” (§219.6(a)(4)). It is vital to meaningful public involvement that the documentation of the assessment be comprehensive. In order to ensure this we propose the following language: “Document the assessment contents from (b)(1) through (b)(4) of this section in a report or set of reports available to the public.”

The final rule must allow for public comment on assessment reports. It is certainly vital for transparency that these reports be available to the public, but this transparency is meaningless without the opportunity for public input. As part of the public participation “encouraged” in §219.6(a)(1), the public should be provided with the opportunity to review as well as comment on and provide additional information for the assessment report prior to its finalization.

The final rule must provide more guidance and parameters for the decision making that occurs along with assessment reports. The proposed rule requires the responsible official to “[i]dentify in the report how a new plan should be proposed, or identify a potential need to change an existing plan, based on the assessment.” (§219.6(a)(5)). This provision is consistent with the purpose of the assessment laid out in the planning framework, however, it is vague and highly discretionary. It is unclear how the decision regarding “how a new plan should be proposed” or “need to change” would be determined. What would trigger these decisions? As discussed above, the failure to prescribe specific mechanisms for making adaptive management decisions undermines the ability of the agency to conduct legitimate adaptive management and erodes public confidence in forest planning. Without clarity regarding these decisions, there is a high likelihood that conflict will occur over whether proper decisions were made, which will be difficult to resolve without triggering criteria to reference.

The final rule must be clear that each plan component within each substantive section of the rule (or, in the alternative, each component that is potentially to be amended) must be investigated as part of a complete assessment. The proposed rule requires that the responsible official “[i]dentify 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” (§219.6(b)(1)). This language incorporates by reference all of the substantive components of the draft rule into the assessment process. However, this is an extremely vague and poorly constructed means of conducting assessments for the required plan components. The plan components developed for §§219.8-219.11 are arguably the most important decisions made within

forest plans. As stated in §219.7(d)(3), “The set of plan components must meet the requirements set forth” in the rule for those sections. Therefore the assessments will determine plan components that are measurable. The ambiguous relationship between assessments, plan components, monitoring, and meeting the requirements of the rule reflects a poor policy decision by the agency. The rule should state more clearly that particular characteristics central to the development of plan components and the requirements of each section (i.e. species of conservation concern) must be considered during the assessment process in such a way as to contribute to the development of a plan component that will meet the rule’s requirements. For example, assessing species not likely to be protected under the coarse-filter of §219.9(a) would satisfy the stated intention of the rule and clearly be relevant to the development of plan components under §219.9.

The final rule should feature Monitoring Evaluation Reports (MERs) more prominently in the assessment process. Section 219(b)(2) lists a number of documents that should be considered in the assessment process. While this is useful, we are concerned about the placement of Monitoring Evaluation Reports within this list. The inclusion and evaluation of MERs within the assessment process should be mandatory as they would be a fundamental source of information on each unit. The connection between monitoring and assessment (leading to plan amendment and revision) is a fundamental part of the adaptive management framework and should serve as a primary piece of assessment.

Similar to the discretion proposed for plan revision, the final rule must provide additional guidance regarding when to engage in plan amendment assessments. The proposed rule states in part that “[w]here the responsible official determines that a new assessment is needed to inform the need for an amendment, the responsible official has the discretion to determine the scope, scale, process, and content for the assessment depending on the issue or issues to be addressed.” (§219.6(c)) Again, this level of discretion is unnecessary – the rule must provide some guidance for managers to make these decisions so that the public can better understand how assessments are being developed and contribute to the process. This will avoid conflicts when stakeholders disagree with forest manager decisions to engage in (or not) an assessment for an amendment.

The definition of assessment should be revised to allow for the development of new information if and when it is necessary for a successful assessment. The proposed rule defines assessment as “[a] synthesis of information in support of land management planning to determine whether a change to the plan is needed. Assessments are not decision making documents but provide current information on select issues...” (§219.19). We are concerned that this definition could limit the generation of new information in the assessment process – the rule should be clear that new information generating and gathering activities can, and in some instances must, be part of the assessment process. For example, on planning units where watershed assessments have not been completed in the past, it will be impossible to establish new plan components for watersheds without first gathering baseline information. If that information does not currently exist, the Forest Service will have to generate it in order to create an effective plan.

The success of future adaptive management within Forest Service planning hinges on a strong framework for assessing the conditions on the ground in order to allow intelligent and effective responses to those conditions. Being fully informed also decreases disagreement and conflict within the planning process. Without revision to the assessment requirements of the proposed rule, we have serious concerns about the ability of the assessment stage of planning to fill this necessary role.

#### **D. §219.7 – New Plan Development or Plan Revision**

This section represents a vital part of the planning rule because it establishes not only the process for how plans are developed but also the content. We are concerned that the considerations of the planning process and the required content for plans are presented in this section in a way that makes it discretionary and “optional” as opposed to mandatory. This could lead to variation and inconsistency among planning units, and disputes at the forest level over what plans should contain. The following changes are recommended to ensure that fundamental pieces of forest planning cannot be left out.

The final rule must clearly define the discretion given to the responsible official in determining when revisions should occur. Plans are to be revised every 15 years in accordance with NFMA. The rule also provides for revisions when “[t]he responsible official has the discretion to determine at any time that conditions on a unit have changed significantly such that a plan must be revised” (§219.7(a)). The rule however, fails to define “significant.” This is problematic for a number of reasons. First, there is little direction for responsible officials that will be faced with the decision of whether or not to initiate a revision. Second, there is little clarity for the public regarding when a revision can be expected and what to do in the event that the public desires a revision to deal with changed conditions that the responsible official chooses not to pursue. This discretion should be removed or an opportunity for public involvement should be included.

Resources to be identified and considered for planning must be more clearly defined in the final rule. The proposed rule would require the responsible official to “[i]dentify the presence and consider the importance of various physical, biological, social, and cultural resources on the unit, with respect to the requirements for plan components of §§219.8 through 219.11.” (§219.7(c)(2)(ii)). This instruction is so vague and discretionary that it is not clear what benefit would come from just “considering the importance” of “various” undefined resources. As stated above the plan components developed for §219.8-219.11 are arguably the most important decisions made within forest plans. Providing direction for a responsible official to merely consider, without greater clarity, the relationship between resources and meeting plan requirements is poor policy. By failing to prescribe how these relationships are determined, the proposed rule clearly commits itself to subjective non-rigorous planning processes that run the risk of failing to make any substantive decisions that can be meaningfully measured or evaluated. This level of discretion and lack of rigor in national forest planning is a bad policy choice.

Trends and stressors, like climate change, must be more than “considered” – they must be mandatory parts of the planning process. The proposed rule would require the responsible official to “Consider conditions and trends and stressors, with respect to the requirements for plan components of §§ 219.8 through 219.11.” (§219(c)(2)(iii)). This provision is of concern because despite the significant issues raised (i.e. stressors like climate change), the responsible official is required only to “consider” conditions and trends. We are concerned that “consider” could mean that the official would look at conditions and trends but then fail to address them, leading to poor assessment and planning. This provision has particular importance in effectively implementing §219.9, Diversity of Plant and Animal Communities, where conditions and stressors, such as climate change, may make it impossible to meet diversity and conservation requirements. Rather than vaguely considering the relationship between conditions, stressors and the ability to meet the requirements for plan components, this language should be revised to provide clear direction to the responsible official to act in response to such conditions, trends, and stressors.



The identification of suitable lands in the planning process will only be useful if there are requirements for designating more than just areas suitable for timber production. The proposed rule would require the responsible official to “Identify the suitability of areas for the appropriate integration of resource management and uses, with respect to the requirements for plan components of §§ 219.8 through 219.11, including identifying lands which are not suitable for timber production (§ 219.11).” (§219(c)(2)(vi)). This provision is highly problematic because not all (in fact, very few) of the plan components referenced actually have suitability determination requirements. The responsible official could determine suitability for some activities and not others, or could simply meet the bare minimum requirement to do so for timber. There is no consistency and no guarantee to the public that proper and necessary suitability determinations will be made in a public process. In addition, it is unclear what an “appropriate integration of resource management and uses” is. The term “appropriate”, lacking any parameters, is highly discretionary.

Significantly, this section lays out the required content for all future plans. Plan components would form the architecture of plans moving forward under this rule. We are concerned that the discretionary nature of the plan components structure presented in the proposed rule does not guarantee that measurable components – standards and objectives – will be used. This does very little to inspire public confidence that plans will lead to effective, meaningful and measurable decisions, and will likely undermine agency attempts to institute effective adaptive management programs.

NFMA requires that the planning rule regulations shall include, but not be limited to “specifying guidelines” for land and resource management plans that are designed to achieve certain statutorily-enumerated objectives. Congress’s intent in enacting NFMA was clearly to require meaningful, enforceable standards as part of any forest planning rule. The statute expressly requires that “[t]he Secretary shall begin to incorporate the *standards and* guidelines required by this section in plans for units of the National Forest System”<sup>92</sup> and “the Secretary shall...promulgate regulations, under the principles of the Multiple-Use Sustained-Yield Act of 1960...that set out the process for the development and revision of the land management plans, and the guidelines *and standards* prescribed by this subsection.”<sup>93</sup>

Further evidence that the forest planning rules must include nondiscretionary standards is found in the fact that all past Committees of Scientists have recognized the need for substantive restrictions on what land managers can do, as well as requirements for what they must do to meet the mandates of NFMA. The first Committee of Scientists, charged by the statute to inform the promulgation of the regulations, supported limitations on agency discretion. The final recommendations of the first Committee to have more detailed and specific regulations rather than broad grants of discretion to the agency were based on concerns that the “‘lure of monetary returns’ would continue to produce ‘biological deserts’ and ‘unstable forest communities,’”<sup>94</sup> as well as concerns that such regulations were necessary for the agency to meet the diversity mandate of NFMA. The following changes are recommended.

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<sup>92</sup> 16 U.S.C. § 1604(c) (emphasis added).

<sup>93</sup> *Id.* § 1604(g) (emphasis added).

<sup>94</sup> Houck at 81.

The final forest rule must clearly state which types of plan components are required for which purposes – we recommend that, at a minimum, desired conditions and objectives be required wherever the rule calls for plan components to be developed. The proposed rule states that “[e]very plan must include the following plan components” (§219.7(d)(1)). This statement is a point of ambiguity and demonstrates the fundamental problem with this section. How many plan components and in what combination? Could a plan have only one desired condition covering one substantive issue, and therefore be in compliance with the planning rule? Could a rule provide just flexible guidelines everywhere plan components are required? The final rule must, at a minimum, lay out which types of plan components are required for each substantive section of the rule. To support effective decision making, each substantive section should be required to have each of the types of plan components, and we recommend that desired conditions and objectives be required.

Desired conditions must be required wherever the rule calls for plan components. Desired conditions set the pathway for forest management by providing a destination to move toward. They are a fundamental part of directing forest management, and should therefore be required for all substantive requirements of the rule.

Objectives must be required wherever the rule calls for plan components. Objectives are the measurable steps by which desired conditions are achieved. A desired condition without at least one objective to reach it is completely meaningless. Therefore, each desired condition must be accompanied by at least one measurable objective, and in many cases more than one. The rule also clearly states that objectives are to be “measurable.” Putting in place measurable objectives is meaningless unless they are actually measured. Objectives should therefore serve as a fundamental component of monitoring programs, with the purpose of measuring the success of the objective in reaching desired conditions. (This issue is discussed in detail in the monitoring section below.)

The final rule must clearly articulate when standards are required by linking them to desired conditions and clarifying “undesirable effects.” Standards, like objectives, guide management to reach desired conditions, and therefore should be clearly linked to and required in conjunction with desired conditions. Standards can also be used to “avoid or mitigate undesirable effects.” While this is a laudable goal, it is only useful if “undesirable effects” are more clearly defined and are identified in the planning process. If no effort is made to identify undesirable effects, there will be a great deal of uncertainty in the establishment of standards.

The final rule must not favor guidelines over desired conditions, objectives, and standards. The definition of a “guideline” raises the obvious question of how activities can depart from the guideline while still meeting its intent. If this is in fact the way the Forest Service intends guidelines to work, the intent of each guideline must be required to be clearly laid out so that proper determinations can be made about whether departures from the guideline are still meeting its intent. In addition, it is unclear how a guideline can be used to meet an applicable legal requirement considering that the proposed rule allows the guideline to not be followed (meaning that the legal requirement would also not be followed). It is of great concern to us that guidelines, which are much less prescriptive than standards and objectives, would be favored by some responsible officials and that the architecture of this section would allow plans to be developed based primarily on loose guidelines, providing little direction or progress on our national forests.

Optional content of the plan should be defined more narrowly, items within the “optional content” section should be made mandatory, specifically “activities to achieve objectives.” The optional

content section of the proposed rule states that “[a] plan may include additional items, including ... criteria for priority areas or activities to achieve objectives of the plan.” While flexibility to achieve objectives is useful, it is disconcerting that activities to achieve objectives would be considered optional, literally the very last type of content allowed (not even required) in the plan. Management activities to achieve objectives (and therefore reach desired conditions, as discussed above), should be a fundamental and required part of each plan. The placement of this language under optional content weakens the definition of objectives above – objectives are to be set, but by determining that activities to actually achieve those objectives (which are supposed to be measurable and on a timeline) be discretionary is a poor policy decision.

Effective implementation of the substantive sections of the proposed planning rule will only be successful if plan components are structured to actually guide meaningful decisions. Accountable decision making requires that plan components be measurable and enforceable. If the final rule’s plan content requirements of §219.7 remain as vague as they are in the proposed rule, we predict conflict and controversy at the forest planning level as stakeholders and responsible officials struggle to interpret the rule’s requirements.

#### **E. §219.8 – Sustainability**

The National Forest System (NFS) provides drinking water for 66 million Americans. Aquatic ecosystems on national forests and grasslands provide vital habitat for endangered and imperiled species and serve as biodiversity hotspots. There are, however, 2,624 impaired water bodies on the national forests and grasslands, and 18,363 impaired river and stream segments that contain at least 50 percent NFS lands.<sup>95</sup> With this level of degradation, it is vital that the new forest planning rule create strong standards for water resource protection. While the proposed rule does incorporate riparian and watershed protections, we have serious concerns that the proposed framework will prove ineffective because of a lack of standards and a failure to define clear management requirements for riparian areas.

The final rule must provide clear criteria for selecting key watersheds to prioritize for maintenance and restoration. The proposed rule requires every plan to “Identify watershed(s) that are a priority for maintenance or restoration.” (§219.7(e)(i)). Setting restoration priorities will be a useful planning activity; however, without any criteria for selecting watersheds it is unclear what results this provision would lead to. Priority watersheds should be identified through a watershed assessment at the assessment phase that takes into account both the current condition and status of the watershed as well as the risks presented by climate change and other stressors. The first step in establishing a system of key watersheds must be identification of the last best places, or refugia. The second step involves the evaluation of the initial network to ensure it encompasses the important breeding and rearing areas and migratory corridors crucial to the survival of native fish, amphibians, and aquatic- and riparian-dependent reptiles, mammals and birds. Finally, further areas that can serve as recovery anchor points must be included. It is crucial that the network of priority watersheds be well-distributed across the land and include areas of importance to all aquatic species.

The Forest Service must spell out not only the criteria for identifying priority watersheds, but also the basic parameters for standards and guidelines that will apply to the management of priority watersheds. The end result, on each forest, should be a network of watersheds across the landscape

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<sup>95</sup> DEIS at 88.

that can serve as near-term anchor points for restoration of riparian ecosystems throughout the National Forest System and beyond. The proposed rule takes a first, tentative step, but it does not advance the priority, or “key”, watershed concept far enough to ensure that plans require actual protection and restoration of these watersheds. Once the initial network of priority watersheds is identified, management standards must be applied that provide rigorous protection against new human-induced ecological harm and require appropriate restoration to allow recovery from past damage. For example, upslope activities can negatively affect water quality and quantity, and road density has a great impact on aquatic ecosystem health, however neither of these issues are addressed in the rule. A priority watershed network should deal with these threats and set the stage for restoration of ecosystem connectivity and allow for the recovery and conservation of imperiled native fish and other aquatic-dependent species. In addition, key watersheds should be added to the list of required ecosystem elements plan components must “maintain, protect, or restore,” (§219.8(2)), and key watersheds should be classified as not suitable for timber production under §219.11(a).

Restoration components must be required, at least where degradation has occurred, in the final rule. The proposed rule states that the plan “must include plan components to maintain, protect, or restore” various attributes. (§219.8(a)). The “or restore” language leaves restoration as an option, providing no clear requirement that restoration be a component of the plan. We recommend that wherever “maintain, protect, or restore” is in the proposed rule, it be revised to read “maintain, protect, or, where degraded, restore.” We recommend that this modification also be made to similar language in §219.9(a).

The final rule must clearly define attributes that require plan components, including “aquatic elements” and “rare” plant and animal communities. Language in §219.8(a)(2) “Ecosystem Elements” is not clear. In addition, the relationship and distinctions between requirements for “ecosystem elements” and requirements for so called “ecosystem characteristics” must be clarified in the final rule and FEIS. The proposed rule calls for components to maintain, protect or restore “Aquatic elements, such as lakes, streams, wetlands, stream banks, and shorelines” and “Rare aquatic and terrestrial plant and animal communities, consistent with § 219.9.” (§219.8(a)). These vague descriptions do not provide any indication of what types of components would be developed here.

For example, potential management actions to “protect” a “stream bank” could vary incredibly from national forest to national forest, depending on interpretation by the responsible official. Also, how would the responsible official determine whether to “maintain, protect, or restore” a “forest stand”? The National Forest System is comprised mainly of forest stands, so this decision is of no small consequence. Use of inclusive lists for aquatic and terrestrial elements is a poor choice in rule writing. By definition, ecosystems are comprised of all the bio-physical elements they contain so the choice of the rule writers to create lists of ecosystem elements seems to imply that certain characteristics of ecosystems are more important than others. The word “rare” is particularly troubling because it could be interpreted in many ways, including requiring a community to be so rare that almost nothing qualifies for a component under this section. We believe that the protection of rare communities is a good conservation decision, but it needs to be prescribed in a more meaningful way to be effective. As we have stated elsewhere in this letter, it would make sense for the agency to define “ecosystem characteristics” and prescribe a meaningful process for assessing, managing and monitoring those conditions. The use of “ecosystem elements” is confusing and does not contribute to public confidence in the implementation of the rule.

A nationwide minimum default width of 100 feet must be established for riparian areas to ensure effective protection while ecologically based buffers are developed. The proposed rule states that each plan “must include plan components to maintain, protect, or restore riparian areas.” (§219.8(a)(3)). It also requires plans to “establish a default width for riparian areas around all lakes, perennial or intermittent streams, and open water wetlands, within which these plan components will apply.” Not establishing a national minimum default width is highly problematic. It has potential to create great conflict over what the default width for each planning unit should be and creates uncertainty that some default widths could be poorly chosen, leading to further degradation of water resources. Because delineation of riparian reserves must be ecologically based, site-specific information, gathered as part of an ecological analysis of the watershed, will be necessary to finalize precise boundaries. As such analysis will necessarily take time, a minimum default width should be established in the planning rule itself. Alternative D in the DEIS adopts a nation-wide, cautious approach, requiring that “until these riparian conservation areas are established, the minimum standard buffer for riparian conservation areas shall be no less than 100 feet on each side of the stream<sup>96</sup> at bank-full flow, unless the stream has an intermittently or potentially shifting channel course, in which case the default buffer must start from the edge of the 200-year channel migration zone.” The Forest Service should adopt the additional language from Alternative D §219(a)(3)(i) for default riparian conservation area widths, including the requirement that best available science be used in establishing the size of these areas.

Management prescriptions within designated riparian areas must be clear, allowing only restorative actions. The proposed planning rule fails to require measurable, enforceable standards for management within riparian conservation areas. Again, Alternative D at (3)(ii)(A)-(B) contains protective management requirements that the Forest Service should adopt in its final rule, establishing riparian conservation area management objectives as restorative with limited exceptions. The language in Alternative D should be strengthened by explicitly noting that activities such as logging, road-building, grazing, mining, and withdrawal or diversion of surface or ground water are not allowed within riparian conservation areas, as well as specifying that riparian conservation areas are not suited for timber production under §219.11(a)(1)(iii).

Monitoring questions related to watersheds must be more clearly defined and linked to the plan components above. The proposed rule states that “Each unit monitoring program must contain one or more monitoring questions or indicators addressing . . . the status of select watershed conditions.” (§219.12(a)(5)(i)). As discussed in the monitoring section below, this instruction is extremely vague and could lead to disparate types of information gathering across planning units. It will also create conflict at the local level over just what this requirement means. As discussed in the monitoring section below, monitoring questions should be required to track progress toward achieving plan components. For this section, that would mean ensuring that restoration activities are working and that protective plan components are in fact protecting high quality watersheds.

Alternative D of the DEIS offers a strong solution consistent with our recommendations and we recommend its adoption. Alternative D 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

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<sup>96</sup> In order to be complete, the word “stream” in Alternative D should be replaced with “all lakes, open water wetlands, and perennial or intermittent streams” in order to include all riparian areas.

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, and to provide spatial connectivity among aquatic and upland habitats.<sup>97</sup>

**F. §219.12 – Monitoring**

The Forest Service independent science review of the proposed rule sums up very clearly our shared interest in a robust and effective monitoring program

There are at least two ways that increased monitoring will be valuable for the Forest Service and for taxpayers that fund it. One is that increased monitoring of the condition of lands will allow the [Forest Service] to be more informed and proactive in maintaining, preserving, and restoring valuable resources. The second way that increased monitoring reflects current science is that the [Forest Service] can use data on its lands to monitor environmental change more thoroughly, including evaluating the current state and trends in climate change, wildlife diversity, the quality of water resources, and ecosystem services in general. Any planning option that does not acknowledge this responsibility is, in my view, outdated scientifically and a lost opportunity. The [Forest Service] could do even more in monitoring.<sup>98</sup>

Our primary concern with the proposed rule’s monitoring program is the ambiguity over how monitoring data is to be used and the failure to connect monitoring questions to the plan components required in the substantive sections of the rule. The weakness of the monitoring section is emblematic of weaknesses throughout the proposed rule; the agency has attempted to shield itself from any meaningful obligations that will contribute to effective forest planning, decision making and evaluation.

In its requirements for the unit monitoring program, the proposed rule states that “Monitoring questions and associated indicators must be designed to inform the management of resources on the unit, including by testing relevant assumptions, tracking relevant changes, and measuring management effectiveness and progress toward achieving or maintaining desired conditions or objectives.” (§219.12(a)(2)). While we commend the Forest Service for including this language, which states the purpose of monitoring questions and how they should be used, we have serious concerns about the proposed monitoring section’s ability to accomplish this. For example, more definition should be provided around this intriguing idea of “testing relevant assumptions.” By including this cryptic language it appears the agency is embracing adaptive management and intends to use monitoring to reduce uncertainty in land management. However, no clear framework for adaptive management is actually provided, including clear direction on how to make course corrections if monitoring information is not conforming to assumptions behind substantive plan components. A contributing factor to the problem is of course the ambiguity that permeates the entire rule, including a clear understanding of the relationship between plan components and rule requirements, which will limit any effort to conduct meaningful monitoring.

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<sup>97</sup> DEIS at 25.

<sup>98</sup> Science Review at 17.

The final rule must clearly state which plan components are to be monitored; we recommend that all desired conditions and all objectives, at a minimum, be monitored, assuming that above recommended changes to plan content are also adopted. Section 219.12(a)(2) goes on to state that “not every plan component needs to have a corresponding monitoring question.” Because “the set of plan components must meet the requirements set forth” in the proposed rule, monitoring associated with the plan components will be essential in determining whether the plan is being effectively implemented. Ambiguity in which plan components will be monitored is problematic because, while not every component necessarily needs a monitoring question, this section provides no criteria for determining which components must have monitoring questions. This potentially leaves key plan components without monitoring, and fails to meet Forest Service claims that monitoring is a fundamental part of this rule. It also creates strong potential for conflict in the planning process over which components should be monitored. The final rule must clearly state which plan components must have associated monitoring questions or at least provide criteria for making that determination. We suggest that all desired conditions and all objectives, at a minimum, be monitored, considering that the definitions of those components include language that lends itself to monitoring.<sup>99</sup>

The final rule must provide additional direction and parameters for the development of the unit monitoring program by responsible officials in order to create consistency between units and to ensure that fundamental aspects of each forest plan are monitored, assurances currently lacking in the draft rule. Section 219.12(a)(5) states that “the responsible official has the discretion to set the scope and scale of the unit monitoring program, after considering...”. The level of discretion provided here is substantial; it is unclear how much the required “considerations” temper that discretion – is the responsible official required to acknowledge or document having made those considerations? Can they consider the factors but then completely ignore them? What if the scope and scale of a monitoring program is inappropriate or unsuccessful? Specifically the proposed rule states that “[i]nformation needs identified through the planning process as most critical for informed management of resources on the unit” must be considered. This language is highly problematic because it is entirely unclear what is referred to. How is the designation of “most critical” made? How are disagreements regarding what is critical resolved?

The final rule must clarify the required monitoring questions and better link them to plan components by requiring the monitoring of “progress toward” meeting components. Doing so will make them more useful in monitoring and assessing forest management. Section 219.12(a)(5) lays out required content for each monitoring plan, stating that “[e]ach unit monitoring program must contain one or more monitoring questions or indicators addressing each of the following.” The items listed are very broad, and considering the discretion given to the Forest Service in the development of monitoring programs, it is of great concern what criteria will be used to choose the watershed and ecological conditions and focal species to be monitored. Additional comments on the required questions are below.

The final rule must state more clearly how watershed conditions will be selected for monitoring and what aspects of watershed health will be monitored. The proposed rule simply states that “[t]he status of select watershed conditions” must be monitored. (§219.12(a)(5)(i)). As discussed in the

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<sup>99</sup> Desired conditions “must be described in terms that are specific enough to allow progress toward their achieving to be determined” and Objectives are “concise, measurable, and time-specific.”

section on water above, this is a fundamental part of the proposed planning rule – the final rule must state more clearly how watershed conditions will be selected for monitoring to ensure that the program is effective in tracking the success of management. We recommend rewording this section to say “*progress toward achieving plan components for watershed condition.*”

The final rule must state more clearly how ecological conditions will be selected for monitoring and what aspects of ecological health will be monitored. The proposed rule simply states that “[t]he status of select ecological conditions” must be monitored. (§219.12(a)(5)(ii)). It is unclear what this means, what types of information will be derived, and how that information will be useful in evaluating how plan requirements contribute to adaptive management. As discussed in the sustainability and diversity sections above, ecological condition monitoring is a fundamental component of forest management and must be clearly defined. Ecological conditions are a causal factor behind a species’ viability, just as ecosystem characteristics are a causal factor behind species diversity. According to the proposed definition of “ecological conditions”, all of these conditions “can affect diversity of plant and animal communities”. Therefore, making discretionary decisions on only monitoring some ecological conditions is nonsensical because it implies that the responsible official will not monitor other conditions that affect plant and animal community diversity. If those conditions are not present, then diversity goals may not be achieved.

In fact, the decision to monitor ecological conditions, which the agency can control, to evaluate species diversity decisions makes little sense. If we assume that action “a” (ecological conditions) will lead to outcome “x” (species viability), the appropriate target for monitoring is the outcome variable, not the causal variable. Monitoring ecological conditions thought to support species viability does not test relevant assumptions, namely that ecological conditions will support viable populations, it only monitors whether the agency was able to develop those conditions. The agency should verify that plans have done what they said they will do, by monitoring implementation, but also conduct effectiveness monitoring to evaluate outcomes. For this reason, the agency must monitor focal species and species of conservation concern to determine if ecosystem characteristics and ecological conditions are in fact providing the conservation outcomes the agency intends.

In addition, there is a great deal of confusion concerning the relationship between ecosystem characteristics and ecological conditions. The agency implies in §219.9 that it can affect changes in both either through the coarse or fine-filters, and that each will maintain species diversity or species viability as the case may be. Yet while there is a vague requirement to monitor select ecological conditions, there is no requirement to monitor the characteristics of healthy and resilient ecosystems (i.e. ecosystem characteristics). We have suggested that the agency define focal species as a compositional characteristic of healthy and resilient ecosystems, and to monitor their population trends using viability parameters to test whether the coarse-filter is providing for species diversity. Naturally, focal species are not the only characteristic of ecosystems that should be monitoring to evaluate a systems health and resilience. Despite using the term “ecosystem characteristics” throughout the DEIS, the agency makes no use of the term within the proposed rule. While we do not understand the rationale behind this decision, we recommend that the agency develop a more concise definition of ecosystem characteristics to support assessment, development of plan components, and monitoring. As currently drafted, we see no requirement in the monitoring section to evaluate the effectiveness of management actions under the coarse-filter. Given the highly conceptual and subjective nature of terms such as “health” and “resilience”, and given the highly ambiguous definitions provided for in the proposed rule, we strongly recommend that the



agency develop in the final rule more clearly articulated means for defining, assessing and monitoring measurable characteristics of these ecosystems.

The final rule must link the monitoring of the status of focal species to ecological diversity within §219.9. The proposed rule states that “[t]he status of focal species” must be monitored. (§219.12(a)(5)(iii)). As discussed in the species diversity section above, the monitoring of focal species must be linked to §219.9(a) as a means of measuring management effectiveness. The language we suggested for §219.9(a) as well as the revised definition of “focal species” provides the necessary link between the two sections. In addition, the process for selecting focal species is also left completely vague in the proposed rule. This process will be fundamental to the success of the monitoring programs and §219.9 overall and it is vital that the process and criteria be more clearly developed in the final rule to prevent future conflict, as discussed in detail above.

The final rule must require monitoring of Species of Conservation Concern. As discussed above, the viability status of Species of Conservation Concern must be monitored under §219.12(a)(5). The list of required items is not sufficient to ensure that all components of §219.9 will be properly monitored. See further discussion of the need for monitoring of all species diversity plan components in the species diversity section above.

The final rule should require the use of scientifically defensible monitoring strategies. Monitoring techniques are vital to the success of the monitoring program and should be more clearly prescribed in §219.12(a)(6), which currently states “A range of monitoring techniques may be used to carry out the monitoring requirements in paragraph (a)(5) of this section.” This section should require reliable, scientifically defensible monitoring techniques to ensure that monitoring is effective and to provide consistency in the success of monitoring across units.

The final rule must provide more detail and parameters for the decision stemming from a biennial monitoring report to amend or revise a plan by requiring triggers or thresholds for decision making. While the biennial evaluations described in §219.12(d) are a welcome and vitally important part of the section, the language describing the required contents must be clarified. The section states that “the evaluation must indicate whether a change to the plan, management activities, or monitoring program may be warranted based on the new information; whether a new assessment should be conducted; or that no amendment, revision, or administrative change is needed.” This provides three options for the responsible official when developing a biennial report, but criteria for selecting among the options is completely lacking. We recommend that this decision be more clearly linked to the required monitoring questions and provide triggers for plan changes and/or new assessments based directly on the results of prescribed monitoring activities. We recommend language similar to that found in Alternative D, which directs the monitoring program to include critical values for ecological conditions and focal species that would trigger modifications to plan components. By specifying these values at the inception of a monitoring program the agency is actually practicing real adaptive management by articulating assumptions at the outset of management actions and then testing relevant assumptions through management actions and monitoring. Adaptive management and monitoring could also be enhanced through more prescriptive and strategic use of plan objectives. Because a plan objective is a “measurable statement”, they can be prescribed for more targeted and effective use. For example, the forest plan could establish measurable distribution objectives for focal species to serve as a proxy measurement for those populations’ viability and as a means to test whether actions to restore healthy and resilient ecosystems were in fact supporting species diversity. Unfortunately, as written, while the proposed rule could enable this type of

planning and management, it does very little to ensure that planning will truly implement concepts of adaptive management.

#### **G. §219.19 – Definitions: Ecosystem Services**

Defenders appreciates the reference to ecosystem services in the proposed rule. Explicit acknowledgement of the full suite of benefits that nature provides is important, even if it is neither possible nor appropriate to monetize them for planning and prioritization purposes. This construct potentially provides a framework for considering and evaluating management trade-offs in the national forests.

The final rule should revise the definition of ecosystem services to more effectively represent National Forest resources. We suggest that the Millenium Ecosystem Assessment framework should not be used in the rule to explain this concept. It fails to adequately characterize certain values, like biodiversity, fish and wildlife, and native plant communities. It also tends to obfuscate concepts that would ordinarily have broad appeal by using familiar terms in unfamiliar ways. By forcing a broad spectrum of ecological values into an anthropocentric framework it suggests that the Forest Service has adopted yet another utilitarian approach that is fundamentally inconsistent with the values of over forty percent of the population, according to a 2010 poll commissioned by the Nature Conservancy.<sup>100</sup>

There are hazards associated with efforts to slice and dice the ecosystem into component parts, especially the tendency to become preoccupied with expensive measurements that do not provide commensurate value for decisionmaking. More importantly, this reductionist approach is fundamentally inconsistent with the principles of ecosystem management and can result, literally, in overlooking the forest for the trees.

At this point, the Forest Service might focus on a few ecosystem services that are easily understood and broadly appreciated, like clean air and water, native fish, wildlife and plants, and carbon sequestration. Developing goals or targets for these values is challenging but possible and will serve to illustrate the point that the forest provides many intrinsic benefits that are also important to people.

We suggest a revision to the definition below, which mentions the traditional commodities for which there are well-established metrics and clear economic benefits to people but emphasizes the public goods that are less likely to be bought and sold but still have significant value.

Ecosystem services. Benefits that nature provides in addition to traditional commodities, including clean air and fresh water, biodiversity, long term storage of carbon; climate regulation; water filtration, purification, and storage; soil stabilization; flood control; and disease regulation, pollination, seed dispersal, soil formation, and nutrient cycling; as well as educational, aesthetic, spiritual, and cultural heritage values, recreational experiences and tourism opportunities.

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<sup>100</sup> Fairbank, Maslin, Maullin, Metz and Associates, Key Findings from Recent National Opinion Research on 'Ecosystem Services' (2010).

Defenders has been working closely with the Forest Service in Oregon, where the Deschutes and Willamette national forests are engaged in ongoing conversations with stakeholders to determine how best to address ecosystem services in future planning and management decisions. We applaud and encourage this approach and appreciate being invited to participate.

#### **H. Subpart B – Pre Decisional Administrative Review Process**

Throughout the process of developing the proposed forest planning rule, the Forest Service has repeatedly touted the high level of public involvement. Subpart B, covering the objection process for plans under the proposed rule, however, is inconsistent with this position. Defenders recommends the following changes, expanded upon below, to increase the level of public involvement in the planning process, consistent with Forest Service rhetoric.

- Time for objection should be extended to 90 days;
- The burden on potential objectors to have formally commented should be removed; and
- The objection content requirement that all subject matter must have been raised in formal comments must be removed.

The time allowed for filing of an objection must be extended to 90 days. Section 219.56(a) of the proposed rule states that “written objections, including any attachments, must be filed within 30 days following the publication date of the public notice for a plan, plan amendment, or plan revision before approval.” This 30 day time period is a departure from past objection procedure and puts a serious burden on the public to be able to complete and file an objection within that time frame. This objection time period should be extended to 90 days. In addition, §219.56(d) forbids extensions for filing objections. This requirement is inconsistent with the spirit of public participation espoused by the Forest Service and should be removed from the final rule, especially in the event that the objection period remains at 30 days.

The final rule must allow objections from individuals and organizations even if they did not submit formal comments. Section 219.53(a) of the proposed rule states that “[i]ndividuals and organizations who have submitted substantive formal comments related to a plan, plan amendment, or plan revision during the opportunities for public comment as provided in Subpart A during the planning process for that decision may file an objection.” This requirement places an unreasonable burden on the public to monitor and comment on the activities of the agency in order to preserve their objection rights. It fails to consider that some objectors are unsophisticated, unrepresented parties upon whom this requirement is particularly burdensome. The final rule should allow parties to join an objection whether or not they filed formal comments. In addition to this burden, §219.53(c) states that “[w]hen an objection lists multiple individuals or organizations, each individual or organization must meet the requirements of paragraph (a) of this section.” This puts an unreasonable burden on the public and prevents parties that want to object from joining another, properly filed objection. This burden should be removed. Finally, an additional burden imposed by the language in proposed §219.53(a) is found in §219.51(a): “A plan, plan amendment, or plan revision is not subject to objection when the responsible official receives no formal comments (§219.62) on that proposal during the opportunities for public comment (§219.53(a)).” This section potentially strips all public rights to object to an agency action. This is unreasonable and should be reversed, as discussed above, in the final rule.

The final rule must remove false restrictions on objection content and allow objections to cover topics not included in formal comments. Section 219.53(a) of the proposed rule states that “[o]bjections must be based on previously submitted substantive formal comments unless the objection concerns an issue that arose after the opportunities for formal comment.” In addition, §219.55(a) states that “[t]he reviewing officer must set aside and not review an objection when one or more of the following applies: None of the issues included in the objection is based on previously submitted substantive formal comments unless one or more of those issues arose after the opportunities for formal comment.” These proposed requirements create an unreasonable burden on the public to comment extensively on every plan and project in order to reserve the right to object on all issues. In addition, it is unclear what standard will be used to determine which issues “arose after the opportunities for formal comment.” If this standard is applied too strictly, it could extinguish the right of the public to object simply because of the failure to spot an issue early in the process or to state an issue clearly enough in a comment letter. This requirement is unfair and must be reversed.

The public should be provided an opportunity to remedy issues with an objection and refile, even if the time for objection has passed. This will allow the public a more fair opportunity to meet the strict standards being put forth by the Forest Service in this regulation. For example, an objection under this proposal is required to have “[a] statement that demonstrates the link between prior formal comments attributed to the objector and the content of the objection, unless the objection concerns an issue that arose after the opportunities for formal comment” (§219.54(5)). This is a complicated requirement and to not allow unrepresented members of the public an opportunity to remedy problems in their timely filed objection and refile would be unfair.

The final rule must require that all documents are available to the public before the objection period time can start to run. Section 219.52(b) of the proposed rule states that “[t]he responsible official shall make available the public notice for beginning of the objection period for a plan, plan amendment, or plan revision (§219.16(a)(4)) to those who have requested the environmental documents or are eligible to file an objection consistent with §219.53.” This notice is not sufficient; documents should be available to the full public and notice of their availability should be published in the Federal Register.

## **V. Comments on the Draft Environmental Impact Statement**

### **A. NEPA Requirements and Forest Planning Regulations**

Congress enacted NEPA to “promote efforts which will prevent or eliminate damages to the environment . . . .”<sup>101</sup> To achieve this goal, NEPA requires federal agencies to fully consider and disclose the environmental consequences of an agency action before proceeding with that action.<sup>102</sup> Agencies’ evaluation of environmental consequences must be based on scientific information that is both “[a]ccurate” and of “high quality.”<sup>103</sup> In addition, federal agencies must notify the public of

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<sup>101</sup> 42 U.S.C. § 4321.

<sup>102</sup> See *id.* § 4332(2)(C); 40 C.F.R. §§ 1501.2, 1502.5.

<sup>103</sup> 40 C.F.R. § 1500.1(b).

proposed projects and allow the public the chance to comment on the environmental impacts of their actions.<sup>104</sup>

The cornerstone of NEPA is the Environmental Impact Statement (EIS). An EIS is required for all “major Federal actions significantly affecting the quality of the human environment.”<sup>105</sup> The EIS must provide a “full and fair discussion of significant environmental impacts and . . . inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment.”<sup>106</sup>

Actions that are connected or cumulative can be considered together in a programmatic EIS.<sup>107</sup> Like their site-specific counterparts, programmatic EISs must inform decision-makers and allow them to consider all the consequences of, and alternatives to, the proposed action.<sup>108</sup> Although a programmatic EIS covers a broad-based action, it still must fulfill the basic NEPA requirements.<sup>109</sup> A programmatic EIS that simply provides general policy guidelines as to relevant environmental factors or includes merely broad, general statements without reasonable conclusions will not withstand judicial scrutiny.<sup>110</sup>

The fundamental purpose of preparing an EIS is to ensure that the agency and the public are fully aware of the potential environmental impacts of a proposed action before the agency decides how to proceed.<sup>111</sup> NEPA mandates that federal agencies take a “hard look at a decision’s environmental consequences.”<sup>112</sup> Specifically, a DEIS must assess the direct, indirect, and cumulative environmental impacts of the proposed action, performing an analysis commensurate with the scale of the action at issue.<sup>113</sup> The EIS must “contain a reasonably thorough discussion of the significant aspects of the probable environmental consequences.”<sup>114</sup> “General statements about ‘possible’ effects and ‘some risk’ do not constitute a ‘hard look’ absent a justification regarding why more definitive information could not be provided “An EIS for a programmatic plan . . . must provide sufficient detail to foster informed decisionmaking.”<sup>115</sup> An agency may not merely identify differences between alternatives and why it prefers one alternative over another, but must actually discuss the environmental consequences of the alternatives.<sup>116</sup>

As discussed above, the Forest Service has failed to comply with these requirements in its three previous attempts to revise the NFMA regulations because it has insisted repeatedly that forest plans do not have environmental consequences and therefore various planning regulations also will not

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<sup>104</sup> See *id.* § 1506.6.

<sup>105</sup> 42 U.S.C. § 4332(2)(C); 40 C.F.R. § 1501.4.

<sup>106</sup> 40 C.F.R. § 1502.1.

<sup>107</sup> 40 C.F.R. § 1502.4(b); *Kleppe v. Sierra Club*, 427 U.S. 390, 409 (1976).

<sup>108</sup> *Id.* § 1502.1; *Natural Res. Def. Council (NRDC) v. Morton*, 388 F. Supp. 829, 838-39 (D. D.C. 1974).

<sup>109</sup> 42 U.S.C. § 4332(C).

<sup>110</sup> *Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800, 810-11 (9th Cir. 1999); *NRDC*, 388 F. Supp. at 839-40.

<sup>111</sup> *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

<sup>112</sup> *California v. Block*, 690 F.2d 753, 761 (9th Cir. 1982).

<sup>113</sup> See, e.g., *id.*; 40 C.F.R. §§ 1502.2 (b), 1508.8.

<sup>114</sup> *California v. Block*, 690 F.2d 753, 761 (9th Cir. 1982).

<sup>115</sup> *Citizens II*, 481 at 1086 (N.D. Cal. 2007) (internal citations omitted).

<sup>116</sup> *Citizens III*, 632 F. Supp.2d 968, 981 (N.D. Cal. 2009) (holding programmatic EIS for 2008 NFMA planning rule was inadequate, in part, because it did “not actually discuss the environmental consequences of eliminating the specific protections that are provided in previous plan development rules”).

have environmental consequences. In each of its previous attempts, the Forest Service nominally responded to previous court orders but nevertheless fell short of NEPA compliance because of this fundamental refusal to acknowledge the consequences of forest planning. The current DEIS suffers from the same flaw and still does not satisfy NEPA's requirements to fully analyze the impacts of the proposed action and an appropriate range of alternatives.

## **B. Comments on the DEIS**

### **1. The purpose and need are improperly defined.**

The consideration of alternatives is “the heart” of an EIS<sup>117</sup> and the scope of alternatives to be considered is in turn determined by the “purpose and need” for the proposed action identified in the EIS. An overly narrow or overly vague purpose and need will artificially constrain the range of alternatives considered and simply serve to justify a decision already made rather than aid in the decisionmaking process. Because the purpose and need in the DEIS suffers from both of these flaws, it must be revisited and revised to ensure that the Forest Service is not simply defining the alternatives to support its chosen approach.

First, the purpose and need for the DEIS is incredibly vague, setting up a situation in which the analysis in the EIS can exclude alternatives arbitrarily.<sup>118</sup> It broadly states that the rule must be responsive “to *issues such as* the challenges of climate change; the need for forest restoration and conservation, watershed protection, and wildlife conservation; and the sustainable use of public lands to support vibrant communities” (emphasis added), that it must be “clear, efficient, and effective,” and that it must “ensure a transparent, collaborative process that allows for effective public participation.”<sup>119</sup> Each of these elements is filled with ambiguity and lack of measurable standards, leaving no objective way of determining whether a particular alternative meets these requirements. Moreover, the final criteria that the rule must be “within the Agency’s capability to implement on all NFS units,”<sup>120</sup> appears to be the agency’s final trump card for excluding alternatives it does not favor.

Second, the purpose and need for the DEIS explicitly excludes both the 1982 and 2000 regulations.<sup>121</sup> Such a narrow and specifically tailored definition is clearly arbitrary and capricious and appears to be a direct attempt to avoid the ruling in *Citizens III*, the most recent court case to consider the Forest Service’s attempt to avoid its NEPA obligations in the development of national forest planning regulations. In that case, the court focused on the fact that *the species viability requirement in the 1982 and 2000 planning rules applied to all forest plans and site-specific actions*. The court stated, “Although the EIS discusses the differences between the various standards, it fails to acknowledge the *effect* of eliminating the viability requirement.”<sup>122</sup> Noting that the EIS cited “practical difficulty” of compliance as the reason for eliminating the viability rule, the court stated, “[i]t is disingenuous for the USDA now to maintain that it has no idea what might happen if it is no longer required to comply with the [viability] requirement.”<sup>123</sup> The court went on to say:

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<sup>117</sup> 40 C.F.R. § 1502.14

<sup>118</sup> DEIS at 7.

<sup>119</sup> *Id.*

<sup>120</sup> *Id.*

<sup>121</sup> *Id.*

<sup>122</sup> *Citizens III*, 632 F. Supp.2d 968, 980 (N.D. Cal. 2009) (emphasis in original).

<sup>123</sup> *Id.*

At the very least, the EIS must discuss instances where the USDA has found the viability requirement to be difficult to implement and analyze the impact of no longer having to ensure species viability in those instances. The same is true with the rest of the EIS chapter entitled 'Affected Environment and Environmental Consequences.' *The EIS discusses the differences between the identified alternatives and explains why the USDA prefers Alternative M, but it does not actually discuss the environmental consequences of eliminating the specific protections that are provided in previous plan development rules.*<sup>124</sup>

By excluding the 1982 and 2000 regulations by definition from the purpose and need for the proposed action, the Service has allowed itself to completely dodge any discussion of the impact of removing the direct application of the viability requirement to actions on the forests. It has further allowed itself to continue to misrepresent that planning regulations and forest plans themselves have no site specific impacts, by simply defining the regulations and any resulting forest plans in this toothless way. It is arbitrary and capricious to completely exclude from consideration any alternatives with binding standards as well as any alternatives that would include site specific applicability independent of forest plan components.

## **2. The DEIS fails to consider a reasonable range of alternatives.**

Because the purpose and need are inappropriately vague and narrow, the range of alternatives considered also is inappropriately constrained. As discussed above, the purpose and need explicitly excludes from consideration both the 1982 and 2000 regulations in what appears to be an attempt to avoid disclosing to the public the impact of removing direct application of the previous regulations' species viability requirement to site specific activities. Notably, while the agency modified Alternative G, which contained only NFMA minimum requirements, to meet the purpose and need and repackaged it as Alternative C for full consideration in the DEIS, it made no similar attempt to accommodate and consider more environmentally protective alternatives like Alternative F (the 2000 Rule), Alternative I (setting national standards for all elements of forest plans), or a modified version of the 1982 Rule. Through these exclusions, not only has the agency eliminated from study any alternative that would have site specific applicability of the wildlife viability requirement, but it has further eliminated from study any alternatives that would contain meaningful binding standards in forest plans as well.

As discussed above, a fundamental flaw of the proposed planning rule is the discretion afforded in the selection of whether to apply binding standards or more flexible plan components like guidelines for all substantive requirements in the planning rule. Such ambiguity leaves it unclear whether these requirements, like the requirement for wildlife diversity and viability, will actually be met, as well as whether the public will be able to hold the Forest Service accountable when they are not met. Even Alternative D, the environmentally preferred alternative, does not contain the types of binding standards included previously in the 2000 and 1982 Rules. Thus, the DEIS includes *no consideration* of the effects of binding standards versus more flexible plan components. This flaw must be remedied in the final EIS.

Alternative F in the DEIS is described as the 2000 planning rule, which in addition to being excluded by definition in the purpose and need as discussed above, was listed as an alternative

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<sup>124</sup> *Id.* (emphasis added).

eliminated from detailed study for not meeting the purpose and need.<sup>125</sup> The justification for excluding the alternative does not appear to be an analysis of the purpose and need, however, but rather the NFMA Planning Rule Review undertaken by the Bush administration in 2001. The Bush administration clearly favored highly discretionary planning regulations, as evidenced by its 2005 and 2008 Rules, which were both invalidated by the courts on NEPA grounds. Rather than simply dismissing Alternative F based on it being unworkable, however, the EIS should have fully disclosed both the *costs and the benefits* of the alternative so that a fresh calculation in light of current science and agency resources could be undertaken. To omit such analysis is to prejudge the outcome of the decisionmaking process and deny both the public and decisionmakers access to relevant information. If the public does not know that the agency does not have sufficient resources to undertake truly science based decisionmaking and required monitoring, then that problem will never be able to be addressed.

Alternative I in the DEIS includes national standards for all aspects of land management plans and was rejected on the basis that it would not “be responsive to the challenges of climate change and the need for restoration and conservation.”<sup>126</sup> The discussion provides no basis for this conclusion, however, and again seems to imply without stating explicitly a rejection of all binding standards. Much like the agency discussed and modified Alternative G to make it more workable and consistent with its objectives, the agency should have examined ways in which Alternative I could be modified to make it more workable. Furthermore, the agency should examine explicitly the consequences of basing a binding plan on the best available science and then proceeding with that plan until new science is available and warrants plan revision. Although the agency clearly implies that this is “not responsive enough,” it does not specify what that actually means, or what the public loses in terms of accountability by allowing so much responsiveness throughout the rule.

Finally, we note that the 1982 Rule was not, but should have been, considered as an alternative to sharply delineate the differences between different management approaches. Although Alternative B includes some elements of the 1982 Rule, the actual alternative analyzed includes only the 2000 Rule’s transition provisions.<sup>127</sup> The Final EIS should also clarify the differences between the 1982 Rule, the 2000 Rule, and the transition provisions. The EIS obfuscates the differences between these provisions, including most notably the site specific applicability of the wildlife viability provision, as discussed in *Citizens III*. While the 2000 transition provisions allow the application of the 1982 Rule for plan development, they make clear that the provisions do not include site specific applicability. Because of this omission, direct application of planning rule requirements is completely absent from the DEIS.

### **3. Description and Comparison of Alternatives is Inaccurate and Insufficient**

The DEIS fails to adequately describe and compare the alternatives presented. An EIS “shall provide full and fair discussion of significant environmental impacts and shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment...”<sup>128</sup> This section of the EIS should

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<sup>125</sup> DEIS at 27-29.

<sup>126</sup> *Id.* at 31.

<sup>127</sup> *Id.* at 23-24.

<sup>128</sup> 40 C.F.R. § 1502.1.



“present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public.”<sup>129</sup> However, the analysis provided is often of Forest Service aspirations regarding the proposed rule and not the actual proposed rule language. There is also a tendency to make strongly biased arguments and conclusory statements in sections of the EIS that should be reserved only for objective analysis and comparison. As is pointed out in the Forest Service independent science review, “generally the analytical framework needs to be bolstered to better identify and compare the pros and cons of the management alternatives relative to environmental concerns, consequences, and indicators.”<sup>130</sup>

#### **a. The EIS Fails to Adequately Describe Alternatives**

Description of the alternatives within an EIS must fairly and accurately represent them; however, there are numerous examples of incorrect or improper statements regarding Alternative A. For example, the DEIS states that the “proposed rule would require plan components for the conservation of all native aquatic and terrestrial species.”<sup>131</sup> The proposal actually would require “plan components to maintain or restore the structure, function, composition and connectivity of healthy and resilient terrestrial and aquatic ecosystems and watersheds in the plan area . . . to maintain the diversity of native species.” (§219.9). Components intended to impact parts of an ecosystem with the purpose of maintaining diversity generally is a substantially lower conservation requirement than components to conserve “all native species,” yet the EIS presents them as the same. This gives the impression that the species diversity standard within the preferred alternative is stronger than it actually is.

The DEIS also states that the proposed rule would require “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.”<sup>132</sup> Alternative A of the proposed rule actually requires monitoring focal species, defined only as “a small number of species selected for monitoring whose status is likely to be responsive to changes in ecological conditions and effects of management.” This proposed definition says nothing about using focal species as indicators of diversity of plant and animal communities and links focal species only generally to the effects of management. This again is a mischaracterization that paints the preferred alternative as stronger on conservation than it actually is. The language used by the Forest Service in the description of Alternative A is actually identical to the language used in Alternative D to describe focal species. This is very misleading; it tends to make the focal species requirements in Alternative A and Alternative D look identical, which is clearly not the case.

The discussion of monitoring in Alternative A also states that “[t]he proposed rule includes requirements for a monitoring program envisioned to facilitate rapid evaluation and amendment of plans, as needed.”<sup>133</sup> While language describing the Forest Service’s vision for the proposed rule may be appropriate in some places, it is inappropriate in what is supposed to be an objective description of the contents of the alternative. By failing to provide any basis for the claim that the proposed

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<sup>129</sup> *Id.* § 1502.14.

<sup>130</sup> DEIS at 26.

<sup>131</sup> *Id.* at 20.

<sup>132</sup> *Id.* at 20, 21.

<sup>133</sup> *Id.* at 21.

monitoring program would provide the type of evaluation described, the EIS mischaracterizes the preferred alternative.

Finally, again on monitoring, the description states that “agency directives would include additional requirements for monitoring protocols.”<sup>134</sup> The proposed alternative, however, does not require or even mention the use of the directive system in this way. In addition, there is no mention of the consequences of using the Directive System, which is unenforceable.<sup>135</sup>

These mischaracterizations and inaccurate statements regarding the preferred alternative taint the entire EIS by providing an incorrect basis for analyzing Alternative A’s effects on the environment and comparing those effects with the other alternatives. This undermines the entire analysis and must be remedied in the final EIS.

### **b. The Comparison of Alternatives is Insufficient**

The comparison of alternatives in the EIS fails to sharply define the issues because some analysis is based on conclusory statements and assumptions about the effects of the alternatives that are not based in fact. NEPA requires agencies to discuss the reasonable alternatives to the proposed action. The discussion of alternatives is “the heart of the environmental impact statement.”<sup>136</sup> An agency must analyze alternatives in sufficient detail at the programmatic level to prevent foreclosure of options without adequate consideration.<sup>137</sup> The DEIS, however, contains misleading statements and improper characterizations of the impacts of alternatives on key resources, making it difficult to accurately compare the alternatives with each other. For example, the DEIS, when comparing the effects of the alternatives on watersheds, states that under the preferred alternative

Plans would be expected to include direction for managing road systems where roads are adversely impacting watershed condition. The trend toward a reduced road system is expected to continue. Fewer and better maintained roads would be expected to reduce the potential for sedimentation and other adverse effects to aquatic resources. Prioritization for where to decommission roads could be based on impacts to priority watersheds, habitat, or other resources or on road density standards or other factors.<sup>138</sup>

However, there is no basis provided for this statement. In fact, it is possible that the exact opposite could occur on some, even many planning units. There are no mandatory requirements that roads be considered in watershed management under the preferred alternative and no requirement that best available science on watersheds (even if it establishes road decommissioning as fundamental to watershed health) be used. In addition to this exaggerated claim about Alternative A’s ability to reduce road density, when discussing the watershed effects of Alternative D (which contains road density reduction requirements) the EIS states that focusing on reducing road density might not work because it would skew road decommissioning from those projects with the greatest impact to

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<sup>134</sup> *Id.*

<sup>135</sup> *Western Radio Servs. Co. v. Espy*, 79 F.3d 896, 901 (9th Cir. 1996).

<sup>136</sup> 40 C.F.R. § 1502.4; *Lee v. United States*, 354 F.3d 1229, 1237 (10th Cir. 2004); *All Indian Pueblo Council v. United States*, 975 F.2d 1437, 1444 (10th Cir. 1992).

<sup>137</sup> *Ilio’ulaokalani Coal.*, 464 F.3d at 1096.

<sup>138</sup> DEIS at 35-36.

those that have the highest mileage.<sup>139</sup> The DEIS cites only a personal communication as the source for this claim. These two sections, read together, essentially show the DEIS stating that road density will decrease under Alternative A despite no requirements related to roads, but that the requirements for road density reduction in Alternative D are unlikely to work. These two positions are difficult to reconcile and show bias in the analysis.

When discussing recreation, the DEIS says that Alternative D provides for additional collaboration, but that “the mix of recreation opportunities might be shifted away from developed and motorized use in some areas to more undeveloped and non-motorized forms of recreation.”<sup>140</sup> There is nothing in the proposed rule or the context provided in the DEIS to indicate that this shift would happen. The unsupported statement appears in a section of the EIS that should provide a clear basis for choosing among alternatives and leaves the decisionmaker with a potentially biased understanding of effects on recreation.

The comparison of alternatives effect on Ecosystem Restoration in Chapter 3 states that, under the preferred alternative, “plans would have components related to restoration activities that would move the unit toward the desired condition.”<sup>141</sup> There is no indication in the proposed rule language that this statement is correct. First, plans need not have components for restoration. Wherever restoration is included in the rule, it is part of a list of options, including to maintain, protect, *or* restore.<sup>142</sup> It is possible that plans could be created only with components that maintain or protect ecological conditions, which represent weaker levels of conservation than “restore,” meaning that plans could be created without any restoration requirements whatsoever. Second, while there will be at least one desired condition within each plan (§219.7), there is no guarantee that desired conditions will be present in each plan that relate to restoration activities. This means that the plans in fact, might not have components related to restoration, and that even where plans do have such components they may be completely unrelated to desired conditions. These two inaccuracies make this statement very misleading.

The most glaring examples of the failure of the DEIS to accurately compare alternatives occur in the section intended to analyze the alternatives effects on Diversity of Plant and Animal Species. As exemplified extensively in the section on this issue above, the comparison fails to accurately describe the differences between the effects of Alternative A and Alternative D. For example, The DEIS states that

The species conservation requirement (§ 219.9) under the proposed rule directs plans to: examine the efficacy of the ecological conditions provided under the ecosystem diversity (coarse-filter) requirement in contributing to the recovery of federally listed threatened and endangered species, conserving candidates to Federal listing, and maintaining the viability of other identified species of conservation concern; and where necessary, include additional species-specific plan components needed to maintain viability of at-risk species on national forests and grasslands.<sup>143</sup>

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<sup>139</sup> *Id.* at 98.

<sup>140</sup> *Id.* at 42.

<sup>141</sup> *Id.* at 74.

<sup>142</sup> 76 Fed. Reg 8492 § 219.8(a)(1), § 219.8(a)(2), § 219.8(a)(3), § 219.9(a) (2011).

<sup>143</sup> DEIS at 110.

However, the requirements of the proposed rule are substantially less significant than what is presented here. The proposed rule provides the responsible official discretion to select species of conservation concern so long as there is evidence of significant concern for its capability to persist. There is no requirement to examine the course filter as part of establishing components for the fine filter.

Similarly, the DEIS states that assessments under §219.6 would assess “ecosystem characteristics within the plan area” and “would identify the ecological conditions needed to support all native species within the plan area.”<sup>144</sup> While assessments under the proposed rule would have 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” for §219.9, there is no indication that assessments would assess “ecosystem characteristics” (the term is not defined in the proposed rule) or determine ecological conditions for “all native species.” If this were the case, it would mean that “supporting all native species” was identical to “maintaining species diversity.” There is nothing to indicate that this is the case.

The DEIS also inflates the requirements for plan components under §219.9. It states that “The proposed rule provisions require plan components for providing the full suite of habitats, at a variety of scales, which are characteristic of the plan area. This alternative requires that plans provide, where feasible, for biological communities and natural disturbance processes to sustain ecosystems.”<sup>145</sup> It goes on to project what types of scientific information would be used for the development of these components, including historical range of variability and other measures. This description goes far beyond the necessary requirements of proposed §219.9. In reality, it is quite unclear what the plan components under this provision would include, but there is certainly no requirement in the proposed rule that they provide a “full suite of habitats” or for “natural disturbance processes.” It is also misleading to list the types of information that would be used in developing plan components when, under proposed §219.3, science need not be used to develop components at all – so long as it is taken into account and recorded it can be ignored completely.

Finally, the DEIS inflates the monitoring provisions pertaining to species diversity. It states that the proposed rule’s monitoring provision

requires monitoring questions that address the status of key ecological conditions affecting species of conservation concern and ecosystem diversity, focusing on threats and stressors that could affect ecological sustainability such as management activities, invasive species, or climate change; and 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 the plan area.<sup>146</sup>

There are two fundamental inaccuracies with this statement. First, it implies that species of conservation concern will be monitored. This is in fact not the case; proposed §219.12 states clearly that not all plan components require monitoring, meaning that anything not specifically listed as a monitoring question (including species of conservation concern) could potentially be left out of the monitoring program on any given planning unit. Second, this statement uses an incorrect

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<sup>144</sup> *Id.* at 111.

<sup>145</sup> *Id.* at 112.

<sup>146</sup> *Id.*

description of focal species, characterizing them as they are defined under Alternative D, and not the more limited use prescribed for them under Alternative A. These two inaccuracies result in this statement being very misleading to the reader and inflating the conservation value of Alternative A.

In addition to improperly inflating the analysis of Alternative A, the discussion of the environmental effects of Alternative D on species diversity is notably deflated, woefully inadequate to provide decisionmakers with the analysis needed to make an informed decision. First, the DEIS inaccurately states that the “effects on maintaining species diversity within the plan area are similar to those disclosed under Alternative A (proposed action).”<sup>147</sup> We would argue that this statement is entirely untrue and included as an attempt to give the impression that the two alternatives are similar when, in fact, they are not. For those additional species diversity components of Alternative D that the DEIS actually recognizes, it fails to take the next step in analysis to provide a description of what the effects of those features will be. For example, the DEIS notes that “Under this alternative, the responsible official would also establish critical values for ecological conditions and focal species to trigger review of planning and management decisions,”<sup>148</sup> but it stops there, failing entirely to provide any information about what effects this addition would lead to, which we would argue are substantial for species diversity. Failing to take the key step of analyzing the effects of an alternative was one of the fatal flaws found in *Citizens III*.<sup>149</sup>

We note, too, that Alternative E is similarly treated. The EIS points out that monitoring under Alternative E would provide benefits, including the ability to change plans in “a more timely manner than under the other alternatives.”<sup>150</sup> This difference seems significant, yet Alternative E is written off as having similar effects to Alternative A.

The failure of this document to accurately and effectively analyze the differences between the presented alternatives is a fundamental flaw. The examples provided here and other deficiencies in analysis must be corrected in the final EIS.

#### **4. Final EIS must reflect input from science reviews**

NEPA regulations state that the Forest Service “shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements,<sup>151</sup> and that any missing or unavailable information be documented.<sup>152</sup> Additionally, “the [NEPA] regulations require that the analysis be undertaken with an ‘interdisciplinary approach’ to ‘insure the integrated use of the natural and social sciences and the environmental design arts.’ 40 C.F.R. Sec. 1502.6 (1993).”<sup>153</sup> However, the Forest Service independent science review identifies numerous deficiencies in information within the DEIS. For example, the science review is described as “poorly linked to actual issues relevant to National Forest Management. It mainly reviews basic concepts in ecology”<sup>154</sup> It is also noted that personal communications are used as references in the DEIS, which,

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<sup>147</sup> *Id.* at 118.

<sup>148</sup> *Id.* at 120.

<sup>149</sup> 632 F. Supp.2d 968, 980 (N.D. Cal. 2009).

<sup>150</sup> DEIS at 40.

<sup>151</sup> 40 C.F.R. § 1502.24.

<sup>152</sup> *Id.* § 1502.22.

<sup>153</sup> *Sierra Club v. Marita*, 46 F.3d 606 (7th Cir. 1995).

<sup>154</sup> Science Review at 26.

according to the science reviewers, are a “detraction” to scientific reviewers.<sup>155</sup> The reviewers also identify specific subject areas in which science is lacking. Some of these subjects are touched on below. We incorporate into our comments the identified gaps in scientific information and the suggested resources found in the Forest Service independent science review.

Regarding conservation biology, the review states that

Overall the review of the field of conservation biology could be improved. Largely lacking is an in-depth discussion of important concepts from the conservation biology literature, including connectivity, core reserves, minimum dynamic area, metapopulations, and the relationship between biodiversity and ecosystem function.<sup>156</sup>

Regarding roads and water quality, the review states that

One area of the draft EIS that does not reflect current scientific understanding of the peer-reviewed literature is the discussion of road building. On page 84, for instance, the EIC reads, “there is uncertainty in the literature regarding a direct cause-and effect relationship of road density to erosion.” Other statements in the paragraph and document (e.g., page 98 of the EIS) are presented in a similar vein. While it is true that one can find examples in the literature where erosion is not positively related to road density, on average there is a scientific (and intuitive) relationship between more road building and maintenance linked to more erosion, at least in habitats vulnerable to erosion. Thus this section could more strongly reflect the benefits on average for road closings, erosion, and watershed protection. Reducing the extent of road building and restoring some existing roads should yield both economic and environmental benefits in many cases.<sup>157</sup>

Regarding the section on Managing Ecological (Habitat) Conditions, the review states that

This section describes very general concepts only. One is left questioning how useful this type of narrative is in terms of establishing clear criteria by which the alternatives will be evaluated. Given the vast science on indicators of biodiversity conservation (see for example Ellison et al 2005; Schulte et al. 2006; Lindenmayer et al. 2000), the reader is left wondering why the chapter is not presenting a more scientifically robust analytical framework.<sup>158</sup>

Regarding adaptive management, the review states that

Chapter 3 encourages adaptive management as one way of responding to uncertainty (“Management in the Face of Uncertainty” section). The use of current peer-reviewed scientific literature and understanding in this particular section could be greatly enhanced. The USDA Forest Services’ experiences with Adaptive Management Areas in the Northwest Forest Plan should be highlighted.<sup>159</sup>

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<sup>155</sup> *Id.* at 14.

<sup>156</sup> *Id.* at 26.

<sup>157</sup> *Id.* at 17.

<sup>158</sup> *Id.* at 41.

<sup>159</sup> *Id.* at 55.

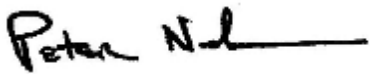
Regarding Collaboration and Resolutions, the review states that

In each of the alternatives, the sub-sections on Collaboration and Resolutions could use more support from the peer-reviewed literature. The literature on “bestpractices” within public involvement is extensive, and it is not clear what the authors of Chapter 3 are including or not including.<sup>160</sup>

The final EIS must provide improved scientific information and analysis in accordance with these comments if it is to meet the requirements of NEPA.

### **Conclusion**

Thank you for the opportunity to submit these comments. We look forward to working with the Forest Service as you move toward a final rule that achieves the laudable forest policy goals that you have laid out for the future.

A handwritten signature in black ink that reads "Peter Nelson" followed by a horizontal line.

Peter Nelson

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<sup>160</sup> *Id.* at 50.