

May 4, 2011

Forest Service Planning DEIS c/o Bear West Company 132 E 500 S. Bountiful, Utah 84010

Re: Comments on the Proposed Rule and DEIS for National Forest System land management planning rule

Dear Madam or Sir,

Please accept these comments on behalf of the Center for Biological Diversity ("the Center"), a non-profit conservation organization with over 320,000 members and online activists. The Center works through science, law, and creative media to secure a future for all species, great or small, hovering on the brink of extinction. The Center appreciates the opportunity to provide comments on the proposed rule and Draft Environmental Impact Statement ("DEIS") regarding the Forest Service's proposed revisions to the National Forest Management Act ("NFMA") regulations.

As set forth in earlier comments, the Center views the National Forest System as critically important for providing a secure refuge for thousands of fish and wildlife species that depend on these lands for their survival during this era of unprecedented climate change. The importance of our national forests for providing clean water, carbon sequestration, and recreational opportunities will also continue to greatly increase as the country's population continues to significantly increase, and climate change impacts continue to intensify. The increased pressures and stresses placed on these national forests and grasslands should mandate strong, national standards and protections in order to insure that fish, wildlife, and other resources are sufficiently protected for future generations.

The Center has devoted considerable time and resources to help defeat past attempts to weaken the NFMA regulations, at a time in history when the regulations should instead be strengthened. In reviewing the proposed rule, the Center looked at a number of key factors to determine whether this would be an important step forward, or yet another attempt at simply increasing agency discretion while putting significant resources and values at risk. These factors include whether there are mandatory enforceable standards to hold the Forest Service accountable, whether those standards will apply to site-specific projects, whether the standards will include a strong viability standard for all fish and wildlife species, and whether planning and projects must be supported by and consistent with the best available science. Unfortunately, the

proposed rule falls far short for all of these factors and instead relies heavily on the discretion of local agency officials, in disregard of past failures and abuses of discretion.

The Center is hopeful that the Forest Service will utilize this public comment period on the proposed rule and DEIS to make major improvements to the proposed rule, and to significantly strengthen the proposed NFMA regulations to insure that the necessary protections are provided for fish, wildlife, aquatic and riparian areas, and other resources.

COMMENTS ON THE PROPOSED RULE

I. The Proposed Rule Properly Requires an EIS for Plan Revisions

NFMA sets forth what procedures, standards and guidelines must be included in the NFMA regulations. 16 U.S.C. § 1604(g). The regulations must include "procedures" to insure that forest plans are prepared in accordance with NEPA. 16 U.S.C. § 1604(g)(1). Unlike earlier proposals, the proposed rule properly requires an EIS for all forest plan revisions. § 219.5(a)(2)(i). Revisions to a forest plan are clearly a major federal action that may significantly impact the environment, and thus an EIS is plainly required.

II. The Proposed Rule Fails to Provide for Diversity of Plant and Animal Communities

NFMA requires that the regulations specify guidelines which "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." 16 U.S.C. § 1604(g)(3)(B). To meet this statutory requirement, the 1982 regulations required the Forest Service to manage fish and wildlife habitat in order to maintain viable populations of species in the planning area, with viable population 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. 36 C.F.R. § 219.19 (1982). The 1982 regulations also required the Forest Service to identify "management indicator species," and to monitor their population trends. *Id.* And the 1982 rule directly applied at the site-specific level, providing a national level of substantive and procedural protections for all projects and activities proposed throughout the National Forest System. Even with these protections in place, however, hundreds of fish and wildlife species that heavily depend on national forests were placed on the endangered species list. As stated in the DEIS:

The 193 million acres of national forests and grasslands support much of North America's wildlife heritage, including: habitat for 429 federally listed threatened and endangered species, with more than 12 million acres of terrestrial habitat and 22,000 miles of stream habitat on NFS lands designated as critical habitat for threatened and endangered species. . .

A large percentage of the federally listed species known to occur on a national forest or grassland are highly dependent on habitats that occur on National Forest System (NFS) lands.

DEIS, at 100-101.

The proposed rule significantly weakens the 1982 viability requirement. For instance, instead of being required to insure the viability of all vertebrate species as required by the 1982 regulations, the proposed rule requires the Forest Service to only maintain viable populations of "species of conservation concern." § 219.9(b)(3). Moreover, identifying "species of conservation concern" is within the discretion of the local Forest Service official where she/he "has determined that there is evidence demonstrating significant concern about its capability to persist over the long-term in the plan area." § 219.19. And "viable population" is vaguely defined as a population "with sufficient distribution to be resilient and adaptable to stressors and likely future environments." *Id*.

The proposed rule also includes a new exception within the weakened viability requirement for whenever the Forest Service decides that it is beyond their authority "or the inherent capability of the plan area." § 219.9(b)(3). Furthermore, the proposed rule only directly applies to forest plan revisions and amendments, and thus, unlike the 1982 rule, provides no direct protection for the hundreds to thousands of site-specific projects and activities that are approved by the Forest Service each year. And the same holds true for any relevant monitoring requirements, as the proposed rule explicitly states that monitoring "does not apply to projects and activities," and "is not a prerequisite for carrying out a project or activity." § 219.12(a)(7). Moreover, there is no requirement for the populations or population trends of "species of conservation to concern" to be monitored over time, meaning there is no way for the public — or the Forest Service - to know whether or not their viability is in fact being maintained.

The proposed rule's included "ecosystem diversity" requirement also adds very little, as it only requires the Forest Service to include forest plan components "to maintain <u>or</u> restore" healthy and resilient ecosystems and watersheds in the plan area." § 219.19(a). Thus, only the status quo needs to be maintained.

The significant weakening of a prior rule — under which hundreds of dependent species were designated as threatened or endangered with extinction — fails to provide for the diversity of plant and animal communities and thereby violates NFMA. 16 U.S.C. § 1604(g)(3)(B). This is especially the case here as the changed circumstances and scientific information that has become available since the 1982 viability standard was promulgated demonstrate that more, and not less, protection is needed. For instance, subsequent to the 1982 rule, science has confirmed global climate change as a real and major threat to fish and wildlife populations, a substantial percentage of aquatic and terrestrial landscapes and habitat within the National Forest System have been impaired, and significantly increased human populations have placed considered stress on millions of acres of national forests. While all the available science and information would point to the need for increased protection in order to provide for the diversity of

plant and animal species, as required by NFMA, the proposed rule arbitrarily weakens prior protections.

The Forest Service in developing the proposed rule fails to consider and disclose the adverse impacts of previous NFMA regulations on fish and wildlife habitat and populations, including old growth habitat and old growth dependant species; and fails to explain how weakening prior standards and protections will still somehow provide for the required diversity of plant and animal communities. Going forward, the agency similarly fails to include the necessary monitoring requirements to insure that the diversity of plant and animal communities will actually be maintained. As set forth by the 1979 Committee of Scientists, "It is simply not possible to assess diversity without knowing what kinds of species compose the different communities in a region and the members of each that are present for the simple reason that kinds and numbers are the biological ways that diversity is measured." 44 Fed. Reg. 53,975 (1979).

The proposed rule must be substantially strengthened in order to fulfill the statutory mandate to provide for the diversity of plant and animal communities. The easiest and safest way to do so would be to return to the 1982 viability requirements with some improvements based on the most recent scientific evidence concerning climate change implications. Alternatively, the Forest Service could further strengthen the additional protections provided for plant and animal communities that are included in Alternative D in the DEIS. DEIS, Appendix F. Compared to the proposed alternative, Alternative D is more similar to and consistent with the 1982 regulations — with which the Forest Service has decades of experience:

The Secretary shall develop plans for and manage plan areas to provide viable populations of native and desired non-native species within the planning area, except that management for desired non-native species shall not interfere with the maintenance of viable populations of native species within a planning area.

DEIS, F-13. Also similar to the 1982 regulations, Alternative D would require population surveys of "focal species," to "assess the degree to which ecological conditions within the planning area are supporting a diversity of plant and animal communities within the planning area." *Id.* at F-15. "Focal species" are similar to the "management indicator species" of the 1982 regulations, as they are to be selected, based on the best available science, "because their population status and trends are likely to be responsive to changes in ecological conditions, and provide reliable and meaningful information regarding the effectiveness of planning and management decisions in maintaining a diversity of plant and animal communities within the planning area." *Id.* at F-23.

One major improvement that is needed for Alternative D in order to provide for the diversity of plant and animal communities, as required by NFMA, 16 U.S.C. § 1604(g)(3)(B), is that like the 1982 regulations, its substantive provisions and monitoring requirements must directly apply to site-specific projects and activities.

III. The Proposed Rule Fails to Provide Adequate Aquatic and Watershed Protections

NFMA requires that the regulations provide considerable protection for watersheds and waterbodies, including insuring that timber will only be harvested where soil, slope, or other watershed conditions will not be irreversibly damaged; and where protection is provided for streams, streambanks, shorelines, lakes, wetlands, and other bodies of water from detrimental changes in water temperatures, blockages of water courses, and deposits of sediment, where harvests are likely to seriously and adversely affect water conditions or fish habitat. 16 U.S.C. § 1604(g)(3)(E).

The current conditions of watersheds in the National Forest System demonstrate the need for stronger protections than provided in the past. As stated in the DEIS,

According to the Forest Service Performance Accountability System database, of the more than 12,000 sixth-code watersheds with significant NFS land ownership, 25 percent are in poor condition. Only 30 percent of watersheds on NFS land are reported to be in good condition.

DEIS, p. 81. The Forest Service cannot demonstrate compliance with the statutory requirements under NFMA until it first addresses the flaws and shortcomings in previous regulations and forest plans that allowed such significant and widespread impacts to riparian areas and watersheds.

The proposed rule, however, fails to provide the required standards and guidelines to meet the statutory requirements for aquatic and watershed protection. The proposed rule provides a general requirement that forest plans include components to "maintain, protect, or restore riparian areas," which simply requires the maintenance of the status quo in already impaired watersheds. § 219.8(a)(3). While forest plans are to establish default widths for riparian areas, *id.*, there is no minimum requirement and no specific standards or protections whatsoever for these riparian areas. Moreover, even if actual standards or protections were identified within the rule, they still would not apply to site-specific projects or activities throughout the National Forest System.

Similarly, the proposed rule requires forest plans to "identify" watersheds that are a priority for "maintenance or restoration," without including any standards or protections for these identified watersheds. § 219.7(e)(1).

The proposed rule does require that forest plans include a monitoring "question or indicator" addressing the status of "select watersheds conditions," but fails to require any meaningful information and again provides no assurance that this monitoring will actually occur as "monitoring is not a prerequisite for carrying out a project or activity." § 219.12(a)(5), (7).

The proposed rule's requirements for aquatic, riparian, and watershed protections must be significantly strengthened in order to meet the statutory requirements and objectives. Alternative D, for example, would require standards and

guidelines for riparian areas, including the establishment of riparian conservation areas based on the best available science. DEIS, p. F-11. Standards and guidelines under Alternative D would require that any management activities in riparian conservation areas be primarily for restoration. *Id.* Additional standards and guidelines would be provided for watersheds, including providing for the biological connectivity of key watersheds, road density standards, restoration of a natural range of variability in sediment regime, sustaining soil productivity, removing roads to restore key watersheds, and establishing the minimum necessary road systems. *Id.* at F-11, F-12. Similar protective, objective, and enforceable standards and guidelines must be included in the final rule, and must apply to both forest plans and site-specific projects.

IV. The Proposed Rule Fails to Provide Adequate Limits on Clearcuts

NFMA requires that the regulations insure that clearcutting will be used only where there are established the maximum size limits for areas to be cut in one harvest operation. 16 U.S.C. § 1604(g)(3)(F)(iv). The statute allows for exceptions "after appropriate public notice and review by the responsible Forest Service officer one level above the Forest Service officer who normally would approve the harvest proposal," and "as a result of natural catastrophic conditions such as fire, insect and disease attack, or windstorm." *Id.* The proposed rule, however, includes yet another vague and expansive exception "where larger units will produce a more desirable combination of benefits." § 219.11(d)(3)(i). This additional exception has no support in the underlying statute and is illegal.

V. The Proposed Rule Fails to Insure Through Monitoring That Management Will Not Produce Substantial and Permanent Impairment of the Productivity of the Land

NFMA requires that the regulations insure that research and monitoring of the effects of the management system will not produce substantial and permanent impairment of the productivity of the land. 16 U.S.C. § 1604(g)(3)(C). Monitoring requirements in the proposed rule, however, fail to insure anything, as they are not at all tied to any actual on-the-ground projects or activities. As set forth in the monitoring section of the proposed rule: "This section does not apply to projects and activities; project and activity monitoring may be used to gather information, but monitoring is not a prerequisite for carrying out a project or activity." § 219.12(a)(7).

Moreover, the Forest Service neglects to disclose and explain the research and monitoring results and deficiencies under previous regulations and forest plans regarding the impairment of the productivity of the land. Until the agency addresses how prior standards, requirements, and forest plans impaired productivity, it is unable to adequately assess the adequacy of the proposed changes.

VI. The Proposed Rule Fails to Require the Identification of the Suitability of Lands for Resource Management

NFMA requires the regulations to include specific guidelines which require the identification of the suitability of lands for resource management. 16 U.S.C. § 1604(g)(2)(A). The proposed rule fails to meet this requirement, as it only provides that specific lands may be identified in forest plans as suitable for various multiple uses or activities, and specifically states that "suitability does not need to be determined for every multiple use or activity." § 219.7(d)(v). The proposed rule instead only requires the identification of suitable lands for timber production. $Id.^1$ To comply with NFMA, the final rule must include standards and guidelines that require the identification of the suitability of lands for all management activities - including livestock grazing; mineral exploration, leasing and extraction; and motorized recreation — and not just timber production.²

VII. The Proposed Rule Should Require that Decisions be Consistent with the Best Available Science

The 2000 regulations require the Forest Service to "ensure that plan amendments and revisions are consistent with the best available science." 36 C.F.R. § 219.24 (2000). The proposed rule, by contrast, requires the Forest Service to "take into account the best available scientific information." § 219.3. We see no reason why the Forest Service should be able to take into account but not insure consistency with the best available science. All forest plans, revisions, amendments, and site-specific projects should be required to be consistent with the best available science.

VIII. The Proposed Rule Should Not Substitute a Pre-Decision Objection Process for the Post-Decision Administrative Appeal Process

Under the 1982 regulations, and for the past three decades, the Forest Service has provided concerned members of the public with a consistent, fair, and open process for administratively appealing forest plan amendments and revisions, in which the public could carefully review the actual decision and determine whether an appeal is appropriate. The proposed rule, however, replaces this long-standing and well-understood administrative system with a new pre-decision objection process. § 219.50. No satisfactory explanation is provided for this major change in the administrative appeal process, and the new format will decrease the public's ability to effectively appeal agency decisions.

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¹ The 1982 regulations, by contrast, required the identification of the suitability and capability of lands for livestock grazing. 36 C.F.R. § 219.20 (1982).

² The Forest Service also again neglects to assess the impacts of the previous regulations and forest plans on the suitability of national forest lands for resource management. Until the agency addresses how prior standards, requirements, and forest plans impacted suitability, it is unable to assess the adequacy of the proposed changes.

By forcing the public to object to a plan amendment or revision *before* the approval of the plan amendment or revision, § 219.50, the proposed rule forces the public to guess and predict as to what the actual decision will be and thereby encourages objections to be filed even if the final decision may ultimately not be objectionable.

The proposed rule also imposes considerable restraints on who may file an objection and what may be included in an objection. § 219.53. At least for instances involving forest plan amendments in which only an environmental assessment or categorical exclusion are relied upon, there may be very little opportunity for the public to learn about the amendment or understand the underlying issues at the time of the public comment period. The proposed rule, however, limits objections to "previously submitted substantive formal comments." *Id.* The proposed rule also increases the burden of filing an objection by generally prohibiting the incorporation of documents by reference. § 219.54(b).

The proposed rule also attempts to discourage objections and to make the objection process a substantial burden on the public by allowing only 30 days even for an extensive forest plan or forest plan revision. § 219.56(a). This flies in the face of the public participation requirements of NFMA, in which Congress recognized the need for at least 90 days to effectively review and respond to forest plans and plan revisions. 16 U.S.C. § 1604(d). To make matters worse, the 30 day period commences from the "publication date of the public notice" for a forest plan or plan revision, meaning the public may very well not even have the plan or plan revision at the time the short objection period begins. § 219.56(a). The inadequacy of the 30-day time period is further highlighted by the fact that the Forest Service has 90 days to review the objection, and even this 90 day response period can be readily extended at the discretion of the reviewing officer. § 219.56(g).

COMMENTS ON THE DEIS

I. The EIS Must Analyze a Full Range of Alternatives

"NEPA requires federal agencies to prepare an environmental impact statement (EIS) for any action that will significantly affect the environment." *California Coastal Commission*, 150 F. Supp. 2d. 1046, 1055 (N.D. Cal. 2001), *citing* §42 U.S.C. § 4332(C). The EIS must consider (i) the environmental impact of the proposed action, (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented, (iii) alternatives to the proposed action, (iv) the relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity, and (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action would it be implemented. 42 U.S.C. § 4332(C). The EIS "ensures that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts; it also guarantees that the relevant information will be made available to the larger [public] audience that may also play a role in both the decisionmaking process and implementation of that decision." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349, 109 S.Ct. 1835, 1845 (1989).

The alternatives section is the "heart" of an EIS. 40 C.F.R. § 1502.14; see also 42 U.S.C. § 4332(2)(E). For the proposed NFMA planning rule, the Forest Service must "[r]igorously explore and objectively evaluate all reasonable alternatives. *Id.* at § 1502.14(a). The EIS must present the environmental impacts of the proposed action and all reasonable alternatives "in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public." *Id.* at § 1502.14. The Forest Service is also directed to consider a "no action" alternative. *Id.* at § 1502.14(d). And, the Forest Service must use the NEPA process "to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment." *Id.* at § 1500.2(f).

A. The Forest Service Must Consider the 1982 Rule in its Entirety as an Alternative

As set forth in the Center's scoping comments, the 1982 NFMA regulations have been in use by the Forest Service for well over twenty years, individual national forests continue to use the 1982 regulations in preparing Forest Plan revisions, and no court has found any legal deficiencies with the agency's development or promulgation of the regulations. The 1982 NFMA regulations must be fully assessed as a reasonable alternative to the proposed action. While the Forest Service considered one alternative that considers the 1982 regulations for forest plan revisions and amendments, this fails to include a major component of the 1982 regulations — that they also directly applied to all site-specific projects and activities throughout the National Forest System. Indeed, by refusing to consider the entirety of the 1982 regulations as an alternative, the Forest Service has failed to fully consider *any* alternative that provides standards and protections for site-specific projects and activities - even though this is how the national forests were managed for most of the past 30 years.

The 1982 regulations were in effect for decades, resulted in the first round for forest plans for the entire National Forest System, and provide a well-established and well-understood benchmark by which to assess all other alternatives. Full consideration of the 1982 regulations as an alternative should also include consideration of the recommendations of the original Committee of Scientists, which was convened in 1979 by appointment of the Secretary of Agriculture. As required by NFMA, the Committee provided "scientific and technical advice and counsel on proposed guidelines and procedures to assure that an effective interdisciplinary approach [was] proposed and adopted." 16 U.S.C. § 1604(h)(1). These recommendations included a commitment to the viability of all vertebrate species in accordance with the NFMA requirement to provide for a diversity of plant and animal communities. *See* Noon, B.; Parenteau, P.; Trombulak, "*Conservation Science, Biodiversity, and the 2005 U.S. Forest Service Regulations,*" Conservation Biology, Volume 19, No. 5 (Oct., 2005).

The Forest Service's refusal to consider the entirely of the 1982 regulations as an alternative in the EIS for the proposed rule violates NEPA.

B. The Forest Service Must Consider the 2000 Rule in its Entirety as an Alternative

As set forth in the Center's scoping comments, the Forest Service must also consider the 2000 NFMA regulations as a reasonable alternative to the proposed rule that must be fully assessed in the EIS. These regulations, which were set forth at 65 Fed. Reg. 67513-67581 (Nov. 9, 2000), were the result of years of work by the agency, as well as another 13-member Committee of Scientists, which was convened by the Forest Service pursuant to NFMA to review the Forest Service planning process and offer recommendations. The Committee held public meetings across the county before issuing its final report in March, 1999, which led to the issuance of the 2000 regulations. The Committee's 1999 report had two overarching themes: (1) ecological sustainability is a prerequisite to social and economic sustainability and should be the first responsibility of the Forest Service and (2) the public needs to have early, broad, and continuous involvement in national forest planning and stewardship. See Noon, B.; Parenteau, P.; Trombulak, "Conservation Science, Biodiversity, and the 2005 U.S. Forest Service Regulations," Conservation Biology, Volume 19, No. 5 (Oct., 2005). While the Forest Service later identified problems with their implementation, the 2000 regulations, or a variation thereof that is consistent with the 1999 Committee of Scientists Report, must still be considered as another reasonable alternative to the proposed action that must therefore be analyzed in this EIS.

C. The Forest Service Must Consider an Alternative That Provides Far Greater Protection for Forests and Biodiversity

Due to the scientifically recognized changes in the global climate that have begun due to the increased atmospheric concentration of greenhouse gases,¹ along with the expected, foreseeable, but uncertain impacts to forests and biodiversity, the Forest Service must also consider an alternative that provides a substantial increase in protection for the fish and wildlife species that depend on the National Forest System. NFMA specifically directs that the NFMA regulations provide for the diversity of plant and animal communities based on the suitability and capability of the land. 16 U.S.C. § 1604(g)(3)(B). Scientists, including Forest Service researchers, have recognized global warming as a key threat to biodiversity. *See e.g.*, Malcom, Jay R.; Liu, Canran; Neilson, Ronald P.; Hansen, Lara; Hannah, Lee, "*Global Warming and Extinctions of Endemic Species from Biodiversity Hotspots*," Conservation Biology, Vol. 20(2): 538-548 (2006).² Due to uncertainties over the extent and impacts of global climate changes on

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¹ See e.g., Intergovernmental Panel on Climate Change ("IPCC") February, 2007, Summary for Policymakers, "Climate Change 2007: The Physical Science Basis," available at http://ipcc-wg1.ucar.edu/wg1/wg1-report.html.

² See also Matthews, Stephen N.; O'Connor, Raymond J.; Iverson, Louis R.; Prasad, Anantha M., "Atlas of Climate Change Effects on 150 Bird Species of the Eastern United States," Forest Service Northeastern Research Station Gen. Tech. Report NE-318 (2004) (projecting that as many as 78 of 150 common bird species may decrease by at least 25 percent due to global climate change); and the IPCC's April, 2007, Summary for

biodiversity and NFMA's mandate to provide for the diversity, the Forest Service must consider and fully analyze an alternative that errs on the side of caution by offering a safe harbor and refuge for these fish and wildlife species.

As stated by former Forest Service Chief Dale Bosworth, the greatest number of imperiled species in the United States are found on the National Forest System, including about half of federally listed species that are found on federal lands; and "the national forests and grasslands have always been the best refuges - the best places for endangered species to make a final stand." Bosworth, Dale, "*Managing the National Forest System: Great Issues and Great Diversions*," Speech to Commonwealth Club in San Francisco, CA (April 22, 2003). This protective "refuge" alternative must therefore recognize the critical importance of the national forests and grasslands in maintaining biodiversity during this time global warming and climate change.

II. The EIS Must Describe in Significantly More Detail the Affected Environment

The EIS must "describe the environment of the area(s) to be affected or created by the alternatives under consideration." 40 C.F.R. § 1502.15. As explained in the Center's scoping comments, for the National Forest System this should include, at a minimum: (1) the present status and distribution of sensitive, threatened, and endangered species that depend on national forests and grasslands; (2) the current condition of rivers and streams on national forests and grasslands; (3) the amount and distribution of remaining old growth habitat on the National Forest System; (4) the extent and impacts of invasive species; (5) a description and assessment of the existing network of roads and trails; (6) an assessment of the current extent of livestock grazing across the National Forest System; (7) the current status of oil, gas, and mineral development on national forests; and (8) the extent of past commercial timber harvest and clearcutting. Much of this information, however, is not provided or addressed in the DEIS, without explanation.

The affected environment assessment must include a detailed discussion of the affected riparian habitat, as national riparian corridors are recognized as the "most diverse, dynamic, and complex terrestrial habitats in the world." Kudray, G., P. Hendricks, E. Crowe and S. Cooper, "Riparian Forests of the Wild and Scenic Missouri River: Ecology and Management" (2004). "The riparian ecosystem is probably the single most productive type of wildlife habitat benefiting the greatest number of species . . . , [and] the influence of riparian ecosystems on wildlife is not only limited to those animal species that are restricted to the riparian zone." Hansen, Paul L., "Inventory, Classification, and Management of Riparian Sites Along the Upper Missouri National Wild and Scenic River: Final Report to the Montana Riparian Association." School of Forestry, University of Montana. Missoula (1989). As part of its affected environment section, the EIS must analyze and disclose what percentage of riparian habitats have

Policymakers, "Climate Change 2007: Impacts, Adaptation and Vulnerability," available at http://www.ipcc-wg2.org/index.html.

been adversely, significantly, and/or permanently impaired by past activities and management on the National Forest System.

The DEIS also fails to provide sufficient information regarding how climate change has already affected the National Forest System. The most recent scientific reports from the IPCC make clear that the atmospheric concentrations of greenhouse gases have significantly increased, which is unequivocally warming and changing global climate systems, and resulting in substantial environmental impacts across the globe.³ As recently recognized by Forest Service and other agency scientists, the past century has already been a period of "dynamic change for many western mountain ecosystems." Stephenson, N.; Peterson, D.; Fagre, D.; Allen, C.; McKenzie, D.; Baron, J.; O'Brian, K., "Response of Western Mountain Ecosystems to Climate Variability and Change: The Western Mountain Initiative," (2006). "By documenting the past response of natural resources to climate variability at annual, decadal, and centennial scales," the Forest Service will be able to establish "an important context for inferring the effects of a warmer climate." *Id.* Changes that have already occurred include increased droughts, changes in the extent and severity of wildfires, changes in disease and insect dynamics, vegetation type conversion, decreased snowpack, and changes in soils. *Id.*⁴ Only by properly recognizing, considering and disclosing current conditions on the National Forest System in relation to past forest management and changing external dynamics can the Forest Service accurately and meaningfully predict the reasonably foreseeable, future management impacts on forest resources.

III. The EIS Must Consider and Disclose the Environmental Consequences of the Proposed Revision of the NFMA Regulations

The "environmental consequences" section of the EIS "forms the scientific and analytic basis" for the comparison of alternatives. 40 C.F.R. § 1502.16. This discussion must include "the environmental impacts of the alternatives including the proposed action, any adverse environmental effects which cannot be avoided should the proposal be implemented, the relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources which would be involved in the proposal should it be implemented." *Id.* This section must include discussions of both direct and

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³ See IPCC's February, 2007, Summary for Policymakers, "Climate Change 2007: The Physical Science Basis," available at http://ipcc-wg1.ucar.edu/wg1/wg1-report.html; and IPCC's April, 2007, Summary for Policymakers, "Climate Change 2007: Impacts, Adaptation and Vulnerability," available at http://www.ipcc-wg2.org/index.html.

⁴ See also IPCC's April, 2007, Summary for Policymakers, "Climate Change 2007: Impacts, Adaptation and Vulnerability," p. 2 (increased run-off and earlier spring peak discharge in many glacier- and snow-fed rivers; warming of lakes and rivers in many regions, with effects on thermal structure and water quality; earlier timing of spring events, such as leaf-unfolding, bird migration and egg-laying; poleward and upward shifts in ranges in plant and animal species); id., p. 3 (alterations of disturbance regimes of forests in Northern Hemisphere due to fire and pests).

indirect effects and their significance, along with the environmental effects of the alternatives. *Id*.

The Ninth Circuit has recognized that because the NFMA regulations control the development of both Forest Plans and site-specific projects, the substantial revision of the NFMA regulations, as proposed by the Forest Service, will result in an actual, physical effect on the environment in national forests and grasslands. *Citizens for Better Forestry v. U.S. Dept. of Agriculture*, 341 F.3d 961, 973 (9th Cir. 2003). The Ninth Circuit further recognized that lowering environmental standards at the national programmatic level, as with the proposed rule, will result in lower environmental standards at the site-specific level. *Id.* at 975. Pursuant to NEPA, the Forest Service must therefore analyze, consider, and disclose the direct, indirect, and cumulative environmental effects of the proposed action in the EIS.

Significantly, in analyzing the potential environmental impacts of its proposed action and alternatives, the Forest Service must recognize that it is not drafting new regulations on a blank slate. Rather, the agency must acknowledge and analyze any proposed changes in relation to the previous and existing regulations. This is because by proposing new regulations, the Forest Service is thereby also proposing to eliminate, replace, or revise the previous regulations that had been in place.

A. The Forest Service Must Consider Potential Impacts to Fish and Wildlife Species

The 1982 NFMA regulations provided mandatory and meaningful protection for fish and wildlife species. The Forest Service was required to manage fish and wildlife habitat to maintain viable populations of existing fish and wildlife species. 36 C.F.R. § 219.19 (1982). In order to ensure viable populations, the agency was required to provide at least a minimum number of reproductive individuals and the habitat was required to be well distributed so that the individuals could interact with others in the planning area. *Id.* Moreover, in order to estimate the potential effects on fish and wildlife populations, the Forest Service was required to identify "management indicator species," and monitor their population trends. *Id.* And additional protection was provided to threatened and endangered species and their habitat. *Id.*

Even with the mandatory protections provided by the 1982 regulations, and the forest plans prepared under the 1982 regulations, numerous fish and wildlife species were placed on the Forest Service's list of sensitive species or designated as threatened or endangered under the Endangered Species Act during the 1980s and 1990s.⁵ In addition, it is now recognized that fish and wildlife species face additional threats resulting from unprecedented global climate change, continued habitat fragmentation,

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⁵ As just one example, even with the mandatory viability requirement in the 1982 regulations, lynx was still designated as a threatened species in 2000 due to the lack of sufficient protection for lynx in forest plans. 65 Fed. Reg. 16052 (March 24, 2000).

and other factors.⁶ Despite these increased threats to wildlife on our national forests, however, the past three attempts by the Forest Service to revise the NFMA regulations all sought to weaken or eliminate the 1982 viability requirement.

As set forth above, the proposed rule again attempts to significantly weaken the 1982 viability requirement. The proposed rule requires the Forest Service to only maintain viable populations of "species of conservation concern;" allows the identification of "species of conservation concern" to the discretion of local Forest Service officials; vaguely defines "viable population" as a population "with sufficient distribution to be resilient and adaptable to stressors and likely future environments;" provides an exception within the viability requirement for whenever the Forest Service decides that it is beyond their authority "or the inherent capability of the plan area;" only applies to forest plan revisions and amendments and thus provides no direct protection for site-specific projects and activities; and similarly provides that the required monitoring "does not apply to projects and activities," and "is not a prerequisite for carrying out a project or activity."

Despite weakening the long-standing 1982 viability requirement, however, the DEIS provides no useful information regarding the likely environmental consequences of this significant change on fish and wildlife species that depend on the National Forest System. Obviously the weakening of requirements and protections at the national level will result in additional impacts to species at the site-specific level, but there is no assessment or disclosure regarding these anticipated impacts. This is a fatal flaw in the DEIS and drastically reduces its usefulness by either the concerned public or eventual decisionmaker.

Similarly, discontinuing the mandatory and enforceable monitoring of populations and population trends of management indicator species, as required under the 1982 regulations, will undoubtedly result in an increase of adverse impacts to fish and wildlife species that is not disclosed in the DEIS. As stated by the Committee of Scientists, "It is simply not possible to assess diversity without knowing what kinds of species compose the different communities in a region and the members of each that are present for the simple reason that kinds and numbers are the biological ways that diversity is measured." 44 Fed. Reg. 53,975 (1979).

The 1982 regulations also required the Forest Service to prepare "regional guides" for each Forest Service region to "provide standards and guidelines for addressing major issues and management concerns which need to be considered at the regional level to facilitate forest planning." 36 C.F.R. § 219.8(a) (1982). As recognized by the Committee of Scientists, the regional plan "serves as a critical link between national and local planning." 44 Fed. Reg. at 2660; see also id. at 26605 ("The regional plan . . . serves as a critical link between national and local planning"); id. at 26606

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⁶ See IPCC's April, 2007, Summary for Policymakers, "*Climate Change 2007: Impacts, Adaptation and Vulnerability,*" pp. 5-6 (recognizing increased risks to ecosystems and imperiled plant and animal species as result of rising temperatures and climate change).

(regional plans are "truly crucial" to planning and should be the "highest order of priority"). Like the 2000, 2005, and 2008 rules, the proposed rule eliminates the regional guide requirement. The DEIS, however, fails to assess and disclose the proposed elimination of these previously required regional guides and the potential consequences to wide ranging and migratory species that need to be considered and addressed at the regional level.

B. The Forest Service Must Consider the Potential Impacts to the Remaining Old Growth Forests in the National Forest System

As set forth in the Center's scoping comments, past timber harvest has decimated old growth forests throughout the National Forest System, and the many wildlife species that depend on these old growth forests are struggling for survival. Providing adequate protection for the remaining old growth forests in the National Forest System has been an issue of heightened interest and intense controversy for at least the past thirty years, and it is an issue that should have received considerably greater attention in the DEIS.

The viability requirement of the 1982 regulations resulted in mandatory, numeric protections for old growth forests within forest plans, including the Northwest Forest Plan in the pacific northwest, the northern goshawk and Mexican spotted owl forest plan amendments in the southwest, and the numeric old growth standard that is included within numerous Forest Plans in the northern rockies. Many national forests are not meeting these numeric old growth requirements in current forest plans, and are thereby continuing to place old growth species at risk. Moreover, best available science (e.g., Lesica), indicates that the old growth requirements in current forest plans must be strengthened in order to provide for the long-term viability of old growth depending species.

Instead of strengthening previous standards and protections for old growth forests, the proposed rule makes significant changes to the 1982 viability standard without any mention, assessment, or disclosure in the DEIS as to how the weakening of the 1982 viability requirement is likely to impact old growth forests and old growth dependent species. The DEIS thus fails to assess or disclose how the Forest Service will be able to satisfy the NFMA diversity requirement for old growth dependent species despite the weakening of protections provided by the 1982 rule. The DEIS disregard of the potential consequences and adverse impacts to old growth forests and dependent species is again a fatal flaw that must be addressed.

C. The Forest Service Must Consider the Potential Impacts of Authorizing Commercial Logging, Livestock Grazing, Oil and Gas Development, and Other Activities in the context of Climate Change

The IPCC, made up of over 1,000 scientists from over 100 countries, concluded that it is "very likely" (90 percent probability) that human activities are the main cause of global warming. The potential environmental consequences that may be caused by global climate change are both enormous and alarming. As set forth in the Center's

scoping comments, the Forest Service must assess and disclose in this nationwide EIS for the National Forest System the potential contribution of projects and activities that are authorized on national forests and grasslands to the ongoing, human-caused changes to the national and global climate.

Forests are the most significant terrestrial stores of living carbon, and in fact slow global warming by storing and sequestering carbon. *See* Union of Concerned Scientists, "*Recognizing Forests' Role in Climate Change*," available at www.ucsusa.org. "Forest plants and soils drive the global carbon cycle by sequestering carbon dioxide through photosynthesis and releasing it through respiration." *Id.* Through photosynthesis, plants capture carbon dioxide and convert it to plant matter that then feeds the base of the entire planetary food chain. *See* Heiken, D., "*The Straight Facts on Forests, Carbon, and Global Warming,*" available at http://tinyurl.com/2by9kt. Old-growth forests are able to store massive amounts of carbon in their trunks as well as in the soil. *Id.*; *see also* Luyssaeert, S., E.D. Schulze, A. Borner, A. Knohl, D. Hessenmoller, B.E. Law, P. Ciais and J. Grace, "*Old-growth Forests As Global Carbon Sinks,*" Nature 455:213-215 (11 Sept. 2008); *and* Rhemtulla, J.M., D.J. Mladenoff and M.K. Clayton, "*Historical Forest Baselines Reveal Potential for Continued Carbon Sequestration,*" PNAS 106:6082-6087 (14 April 2009).

When forests are degraded or logged, their stored carbon is released back into the atmosphere during harvest and through respiration, thus becoming net contributors of carbon to the atmosphere. *See* Depro, B.M., B.C. Murray, R.J. Alig and A. Shanks, "Public Land, Timber Harvests, and Climate Mitigation: Quantifying Carbon Sequestration Potential on U.S. Public Timberlands," Forest Ecology and Management 255:1122-1134 (2008). Tropical deforestation, for instance, is responsible for approximately 20% of total human-caused carbon dioxide emissions each year. *See* Union of Concerned Scientists, "Recognizing Forests' Role in Climate Change."

Forests are able to help mitigate for global warming in at least three ways: conserving existing forests to avoid emissions associated with forest degradation or clearing; sequestration by increasing forest carbon absorption capacity - occurring primarily by planting trees or facilitating the natural regeneration of forests, and the substitution of sustainably produced biological products. *Id.* In other words, to help our forest store more carbon, and thereby alleviate the leading cause of global warming, we need to let our forests grow. *Id.* The Forest Service must consider and disclose the potential environmental consequences and climate change implications resulting from any anticipated continued commercial harvest of timber on our national forests. The required analysis must also consider and disclose the economic context, impacts and tradeoffs of allowing continued commercial timber harvest on national forests in comparison to the economic and environmental benefits of retaining these forests for carbon sequestration.

The Forest Service must also consider the anticipated continuation of any livestock grazing and its contribution to climate change. A recent report from the Food and Agriculture Organization of the United Nations found that livestock are responsible for eighteen percent of greenhouse gas emissions, representing a larger share than that

of transport. *See* Steinfeld, H.; Gerber, P.; Wassenaar, T.; Castel, V.; Rosales, M.; Haan, C., "*Livestock's Long Shadow, Environmental Issues and Options*," (2006). Livestock grazing is widespread across the National Forest System in the western United States, and the contribution of this grazing on climate change must be assessed and disclosed. The EIS must therefore include an assessment and full disclosure of the greenhouse gas emissions that are directly, indirectly, and cumulatively related to livestock grazing on national forests and grasslands.

The EIS must also consider any expected oil and gas development on national forests. The ultimate burning of these fossil fuels would further increase global warming pollution, which needs to be considered and disclosed in this EIS. Similarly, the EIS must also address the emerging major issue of biomass and how the expanding biomass industry could affect the national forests and climate change impacts.

IV. The EIS Must Consider and Disclose the Threats Posed by Climate Change to the National Forest System

Global warming and climate change implicates all aspects of the management of our national forests. Global warming is also undeniably one of the greatest threats to our nation's biodiversity. Global warming is already adversely affecting numerous fish and wildlife species in the United States, and these impacts are expected to accelerate and continue. See e.g., IPCC's April, 2007, Summary for Policymakers, "Climate Change 2007: Impacts, Adaptation and Vulnerability," pp. 5-16 (discussing "current knowledge about future impacts" resulting from climate change, including fresh water resources, ecosystems, forest products, and more specific information on North America); see also Fagre, D.B. and others, 2009, "Thresholds of Climate Change in Ecosystems: Final Report, Synthesis and Assessment Product 4.2," U.S. Climate Change Science Program and Subcommittee on Global Change Research. U.S. Geological Survey: Washington, D.C. (reviewing threshold changes in North American ecosystems potentially induced by climate change, positive feedbacks and nonlinear instabilities that propagate in a domino-like fashion and are potentially irreversible; and suggesting actions that land and resource managers can apply to improve likelihood of success in adaptive management).

NEPA is recognized as "our basic national charter for protection of the environment." 40 C.F.R. § 1500.1(a). NEPA "is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment." *Id.* at 1500.1(c). Information in an EIS must be of "high quality," and accurate scientific analysis is recognized as "essential to implementing NEPA." *Id.* at § 1500.1(b). The Forest Service must use the NEPA process to identify reasonable alternatives that will avoid or minimize the adverse effects of its actions on the environment, and to use all practicable means to restore and enhance the quality of the human environment. *Id.* at 1500.2(e-f). In light of these explicit purposes and policies, it would be inconceivable for the Forest Service not to address and disclose the real threats to the national forests and grasslands resulting from the scientifically recognized changes in climate and the potential implications for the National Forest System within this nationwide EIS. *See also* 42

U.S.C. § 4331(b) (federal agencies have a continuing responsibility to use all practicable means to "fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.").

A. Potential Impacts of Climate Change on Forests

Federal agency scientists recognize that global climate change will result in significant impacts and changes to forests in the western United States. See van Mantgem, P.J., N.L. Stephenson, J.C. Byrne, L.D. Daniels, J.F. Franklin, P.Z. Fule, M.E. Harmon, A.J. Larson, J.M. Smith, A.H. Taylor and T.T. Veblen, "Widespread Increase of Tree Mortality Rates in the Western United States," Science 323:521-524 (23 Jan. 2009); see also Stephenson, N.; Peterson, D.; Fagre, D.; Allen, C.; McKenzie, D.; Baron, J.; O'Brian, K., "Response of Western Mountain Ecosystems to Climate Variability and Change: The Western Mountain Initiative" (2006). The Western Mountain Initiative is an agency research program focusing on understanding and predicting responses of western mountain ecosystems to climatic variability and change. *Id.* Scientists predict that the anticipated increase in temperature may shift the ideal range for many forest species by about 200 miles to the north. Insect and pathogen outbreaks may also increase in severity. See IPCC's April, 2007, Summary for Policymakers, "Climate Change 2007: Impacts, Adaptation and Vulnerability," p. 10 (disturbances from pests and diseases projected to have increasing impacts on forests). The EIS must consider and disclose the findings of relevant scientific research regarding the expected impacts of climate change on forests as it analyzes the affected environmental and the proposed rule's potential environmental consequences.

B. Potential Impacts of Climate Change on Biodiversity

Global warming is recognized as a key threat to biodiversity. *See* Malcom, Jay R.; Liu, Canran; Neilson, Ronald P.; Hansen, Lara; Hannah, Lee, "*Global Warming and Extinctions of Endemic Species from Biodiversity Hotspots*," Conservation Biology, Vol. 20(2): 538-548 (2006). One-third of U.S. species are already at risk and of conservation concern, with more than 500 species likely already extinct. *See* Precious Heritage: The Status of Biodiversity in the United States," (March, 2000); *see also* Matthews, Stephen N.; O'Connor, Raymond J.; Iverson, Louis R.; Prasad, Anantha M., "*Atlas of Climate Change Effects on 150 Bird Species of the Eastern United States*," Forest Service Northeastern Research Station Gen. Tech. Report NE-318 (2004) (projecting that as many as 78 of 150 common bird species may decrease by at least 25 percent due to global climate change).

Moreover, twenty-six percent of imperiled species are found in the National Forest System, including about half all the populations of federally listed species that are found on federal lands. *See* former Forest Service Chief Dale Bosworth speech to Commonwealth Club of San Francisco, CA (April 22, 2003). For species that are already on the brink of extinction, such as the Selkirk and Cabinet-Yaak populations of grizzly bears and the few remaining woodland caribou, the expected changes in climate could be the final blow to these species' survival unless the Forest Service takes action to significantly increase their protected habitat. The Forest Service must therefore assess

and disclose the potential consequences of global climate change on the fish and wildlife species that depend on national forests for their survival, including the already sensitive, threatened, and endangered species.⁸

C. Potential Impacts of Climate Change on Wildfire

The increased atmospheric concentrations of greenhouse gases also means that the extent and severity of wildfires will likely change in many forests. *See, e.g.*Westerling, A.L., H.G. Hidalgo, D.R. Cayan and T.W. Swetnam, "*Warming and earlier spring increase western U.S. forest wildfire activity,*" Science 313:940-943 (18 Aug. 2006); Bachelet, D., J.M. Lenihan and R.P. Neilson, "Wildfires and Global Climate Change: The Importance of Climate Change for Future Wildfire Scenarios in the Western United States," unpubl. report to Pew Center on Global Climate Change, December 2007 (20 pp.); IPCC's April, 2007, Summary for Policymakers, "*Climate Change 2007: Impacts, Adaptation and Vulnerability*," p. 10 (disturbances from fire are projected to have increasing impacts on forests in North America, "with an extended period of high fire risk and large increases in area burned."). The EIS must therefore consider and disclose the implications of global climate change on the threat and intensity of future wildfires within the National Forest System.

D. Potential Impacts of Climate Change on Recreation

As stated, the proposed action would only exacerbate global climate change by likely increasing timber harvest, maintaining or increasing livestock grazing and allowing the Forest Service to proceed with its increased emphasis on oil and gas development. The EIS must explore and disclose the already occurring and expected impacts of climate change on the millions of recreational users of the National Forest System. This must include consideration of the adverse impacts to ski resorts located on national forests, cross-country skiing, snowshoeing, cold-water fishing, and other affected recreational uses.

⁸ See also IPCC's April, 2007, Summary for Policymakers, "Climate Change 2007: Impacts, Adaptation and Vulnerability," p. 5 ("The resilience of many ecosystems is likely to be exceeded this century by an unprecedented combination of climate change, associated disturbances (e.g., flooding, drought, wildfire, insects, ocean acidification), and other global change drivers (e.g., land use change, pollution, over-exploitation of resources."); id., p. 6 ("Approximately 20-30% of plant and animal species assessed so far are likely to be at increased risk of extinction if increases in global average temperature exceed 1.5-2.5° C."); id. ("For increases in global average temperature exceeding 1.5-2.5° C and in concomitant atmospheric carbon dioxide concentrations, there are projected to be major changes in ecosystem structure and function, species' ecological interactions, and species' geographic ranges, with predominantly negative consequences for biodiversity, and ecosystem goods and services e.g., water and food supply.").

V. The DEIS Fails to Adequately Address Conflicting Science

Pursuant to NEPA, an EIS must disclose and respond to conflicting science and opposing views. See 40 C.F.R. § 1502.9(b). The DEIS fails to adequately meet this requirement concerning both the 1979 and 1999 Committee of Scientists Reports. See "Sustaining the People's Lands, Recommendations for Stewardship of the National Forests and Grasslands into the Next Century," available at http://www.fs.fed.us/emc/nfma/includes/cosreport/Committee%20of%20Scientists%20Report.htm

For instance, the 1999 Committee of Scientists Report recognized that habitat alone cannot be used to predict wildlife populations, and therefore "populations of species must also be assessed and continually monitored." The Report similarly states:

Available knowledge of species' ecologies and their functional roles in ecological systems is so limited that it is not always possible, *a priori*, to unambiguously identify focal species. Therefore, the selection of focal species, based on existing information and the criteria for inclusion, should be treated as a hypothesis rather than a fact. Given this uncertainty, the assumption that a specific species serves a focal role must be validated by monitoring and research.

Due the direct relevance of the Committee of Scientists Reports, the EIS must fully and comprehensively disclose and explain all inconsistencies between the Reports and the proposed rule.

ENDANGERED SPECIES ACT

Pursuant to the Endangered Species Act ("ESA"), the Forest Service must consult with the United States Fish and Wildlife Service and National Marine Fisheries Service to insure that the proposed rule is not likely to jeopardize the continued existence of any threatened or endangered species, or result in the destruction or adverse modification of any critical habitat for listed species. 16 U.S.C. § 1536(a)(2). Hundreds of threatened and endangered species, along with designated critical habitat, are present throughout the National Forest System. DEIS, at 100 ("The 193 million acres of national forests and grasslands support much of North America's wildlife heritage, including: habitat for 429 federally listed threatened and endangered species, with more than 12 million acres of terrestrial habitat and 22,000 miles of stream habitat on NFS lands designated as critical habitat for threatened and endangered species"). The proposed rule, by weakening the 1982 viability requirement and eliminating prior protections for threatened and endangered species that previously applied directly to site-specific projects and activities, will adversely affect listed species and critical habitat and therefore formal consultation, preparation of a biological assessment, and preparation of a biological opinion are all required by the ESA. 16 U.S.C. § 1536(b, c); 50 C.F.R. § 402.12; 50 C.F.R. § 402.14.

CONCLUSION

Major improvements to the proposed rule are necessary in order to comply with NFMA and the ESA, and improvements to the EIS are necessary pursuant to NEPA. We are hopeful that these comments will be carefully considered in making the necessary improvements, and to insure a sufficient level of protection for the thousands of species that depend on the National Forest System for their survival.

Sincerely,

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