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BY E-MAIL AND U.S. MAIL

Re: George Washington Plan Revision – Comments on Notice of Intent published 3/10/2010

Dear Ms. Hyzer and GW Plan Revision Team:

Thank you for the opportunity to comment on the Notice of Intent (NOI) to prepare an environmental impact statement and revised land management plan using the provisions of the 1982 National Forest System land and resource management planning regulations for the George Washington National Forest (GW), 75 Fed. Reg. 11107 (Mar. 10, 2010). Please accept the following comments on behalf of the Southern Environmental Law Center, the Southern Appalachian Forest Coalition, and The Wilderness Society.

We are glad that the GW will revise its plan under the 1982 National Forest Management Act (NFMA) regulations, as well as prepare an Environmental Impact Statement (EIS) for the plan and consult with the U.S. Fish and Wildlife Service (FWS). These important environmental reviews and protections have been missing from the plan revision, which was begun under the now-invalidated 2005/2008 NFMA regulations.

With the NOI, however, the GW has released a highly detailed, virtually complete draft revised forest plan. This plan is based on analyses conducted under those weak, invalid 2005/2008 regulations, rather than on the requirements of the 1982 regulations now governing the revision, such as maintaining fish and wildlife species population viability and identifying lands not suitable for timber production based on certain factors laid out in the rule. Moreover, the draft was developed before the NEPA process even began with this NOI and scoping period, without analyzing the environmental effects of the proposal and a range of reasonable alternatives. Highly relevant and significant issues which should drive alternatives, such as climate change, species viability and water resource protection, have not yet been studied. Our concerns about the premature development and proposal of a draft revised plan are described in detail below. Going forward, the GW must be very open to making major changes to this proposal based on the EIS analysis and proper planning under the 1982 regulations.

Regarding the draft plan itself, we still have many of the same concerns about its approach that we had in June 2009, when we commented on the direction the revision was heading then. We also want to highlight two additional issues. First, we have serious concerns

about the new proposal to increase the amount of land designated as suitable for timber production to 500,000 acres, from 350,000 acres in the 1993 plan. This major increase in land managed for timber production is proposed without any documented, publicly available analysis that we know of regarding that land’s suitability for timber production as defined by the 1982 regulations.

Second, we welcome the decision to reevaluate the oil and gas leasing availability decisions. The 1993 plan made almost all of the GW (97%) available for federal oil and gas leasing. As discussed further below, we have significant concerns about the potential increased demand for natural gas development in the Marcellus shale and other formations underlying much of the GW. Such development using hydraulic fracturing has caused surface and groundwater pollution in other states. The EIS thoroughly should analyze the direct, indirect and cumulative impacts of such development on the GW, particularly on water quality and quantity, and should consider making all “full fee” lands (i.e. federal mineral ownership) unavailable for leasing. While the plan is being revised and the availability decision is being reevaluated in this EIS, we ask the Forest Service not to consent to any additional oil and gas leasing or development on the GW.

We submit detailed comments on these and certain other issues below, but they can be only a preliminary response to the vast documents posted to the plan revision website with the NOI. We look forward to continuing to participate in the revision process and to discussing these issues further with the Forest Service. Please keep us informed of all future developments regarding the GW plan revision.

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I. Environmental Analysis and Forest Planning Process, Significant Issues, and Alternatives.

A. The Forest Service has proposed the functional equivalent of a draft revised forest plan, potentially preempting, constraining and violating the NEPA and NFMA processes for environmental review, forest planning, and decision-making.

Taken together, the draft documents made available with the NOI on the GW's website form the functional equivalent of a draft revised forest plan. Not only has the Forest Service apparently already concluded what needs to change and identified the significant issues that will drive the revision, the agency has developed a highly detailed draft revised forest plan, complete with: forest-wide desired conditions, standards and guidelines; draft management prescriptions, also with desired conditions, standards, guidelines, suitability for various uses, and acreages allocated and mapped; land suitable for timber production identified and mapped; and recommended wilderness areas identified and mapped. Detailed maps of the proposed alternative and the other alternative (remote recreation and habitat) are posted to the website and were available at the recent public scoping meetings.

This essentially is the draft revised plan (or perhaps a somewhat fleshed out version of that draft) that was developed last year under the now-invalidated 2005/2008 National Forest Management Act (NFMA) regulations and almost released right before the 2008 rule was enjoined. Yet now the GW plan is to be revised under the substantively different 1982 NFMA regulations, an EIS will be prepared, and the Forest Service will consult formally with the U.S. Fish and Wildlife Service (FWS).

The current proposal was not developed under or to comply with the different (and more environmentally protective) substantive provisions of the 1982 rule, including the requirements to: maintain viable, well-distributed populations of fish and wildlife species; identify and monitor management indicator species (MIS); provide for diversity of plant and animal communities and tree species; and identify land unsuitable for timber production based on various factors laid out in the 1982 regulations, including economic cost. As discussed further below, it is not at all apparent that the proposal meets these substantive requirements, because we cannot see where the GW has documented analysis of them.

Moreover, additional or different needs for change or significant issues may be prompted by these or other aspects of the 1982 rules, by the EIS analysis, or through consultation with FWS. For example, the GW's proposal was developed without ever fully analyzing climate change issues. Although the NOI lists climate change as an issue previously identified, to our knowledge it was not analyzed at all prior to the January 2009 proposal upon which this draft is based and climate change considerations never have driven the proposed management objectives and land allocations, at least not to any significant degree. Now that an EIS will be done, climate change will need to be analyzed and considered, and alternatives should be developed to address it.

From a procedural standpoint, this draft was not developed according to the NEPA EIS process and to the 1982 NFMA regulations' forest planning process. These processes should be

concurrent where possible, and the alternatives developed and proposed (draft) revised plan should be a product of those analyses, which the current proposal is not.

This detailed proposal puts the “cart before the horse” of the NEPA analysis and decision-making process, circumventing the NEPA process of scoping, identifying and analyzing the issues, developing alternative ways of addressing them, making that analysis available to the public for informed comment, and then making decisions based on all of that information. See 40 C.F.R. § 1500.2(c) (“Integrate the requirements of NEPA with other planning . . . so that all procedures run concurrently rather than consecutively.”); § 1501.2 (“integrate the NEPA process with other planning at the earliest possible time to insure that planning and decisions reflect environmental values, to avoid delays later in the process, and to head off potential conflicts. . . . Environmental documents and appropriate analyses shall be circulated and reviewed at the same time as other planning documents.”); § 1501.7 (“There shall be an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action. . . . As soon as practicable after its decision to prepare an [EIS] and before the scoping process the lead agency shall publish a notice of intent. . . .”); § 1502.5 (“The [environmental impact] statement shall be prepared early enough so that it can serve practically as an important contribution to the decision-making process and will not be used to rationalize or justify decisions already made. . . .”).

The analysis of environmental effects “forms the scientific and analytic basis for the comparisons” of alternatives, which is the “heart of the environmental impact statement” and “should 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.” § 1502.14; § 1502.16. The GW has not yet analyzed environmental effects or developed and seriously considered any alternatives. The one alternative presented to the public to date is the extremely sketchy, factually inaccurate 4-page “More Emphasis on Remote Recreation and Remote Habitat Alternative” and its map (discussed further below), which were offered for the first time along with the numerous other documents posted to the website with the NOI.

The GW’s approach also circumvents the NFMA forest planning process, which includes steps that build on one another, such as the analysis of the management situation (AMS) (discussed further below), the formulation of alternatives according to NEPA and to certain criteria in the NFMA regulations, the analysis of their effects, evaluation of alternatives, and then the recommendation of a preferred alternative and the proposal of a revised plan, with public participation throughout. See 36 C.F.R. § 219.6; § 219.12. The GW has bypassed all of this and gone straight to proposing a revised plan.¹

In early February, before the NOI was released, The Nature Conservancy and several other organizations, including SELC, wrote to the GW’s Planning Staff Officer expressing our concerns with the idea of releasing a highly detailed proposal with the NOI. See Letter from The Nature Conservancy, et al. to Ken Landgraf, GWNF (2/5/2010). Our concerns then were two-fold: (1) we believed it was premature to develop a virtually complete draft plan without

¹ While there certainly has been public participation in the plan revision prior to the NOI, the public has not had an opportunity to comment on the NEPA and 1982 NFMA rule analyses because those have not been done.

analyzing as-yet unaddressed issues (e.g., climate change), new obligations presented by the 1982 regulations (e.g., species viability), and environmental impacts and alternatives, and (2) we feared that the release of such a highly detailed proposal would constrain public scoping comments and future Forest Service planning. All of those concerns are only heightened now that the GW has released what essentially amounts to a draft plan – a set of even more detailed proposals than we anticipated in February.

The GW's March 25, 2010 Update attempted to backpedal, stating that the primary objective for this comment period is to identify significant issues and alternatives to drive the analysis that will be done in the EIS. The Update seemed to attempt to deflect attention from the detailed draft plan. This cannot repair, however, the problems with the GW's premature development and release of a draft plan.

We continue to believe it likely that the public naturally and inevitably will narrowly focus on responding to the proposals and information provided, thereby constraining public input, precluding both the identification of additional issues and, perhaps even more importantly, the development of alternative ways of addressing the issues identified, and essentially limiting environmental analysis and plan development to the current proposal.

Similarly, the Forest Service obviously has invested significant time and resources in this draft. We are concerned that the Forest Service will become attached to and entrenched in it, reluctant to rethink analyses which seem complete but were first performed under the auspices of other regulations or under another administration's policies, to fully assess new, unaddressed or incompletely addressed issues, or to seriously consider major changes to work the Forest Service may be invested in and view as almost finished. It will be extremely important for the agency to be willing to make the tough choices to revisit issues, address new issues, meaningfully and seriously consider a range of reasonable alternatives, and make changes to its proposals based on the results of the environmental analysis or on the requirements of the 1982 rule. While information previously obtained in the planning process may still be useful, the 1982 rule and the EIS analysis must inform and lead to the development of alternatives and to a proposed revised plan, rather than attempting to retrofit previous analyses to justify outcomes already settled on internally.

The NEPA (and NFMA) processes are designed to prevent this type of *post hoc* analysis and to inform and lead to better decisionmaking, but that cannot happen if the process is short-circuited and decisions already have been made internally. See 40 C.F.R. § 1500.1(b) (“NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made. . . .”); § 1500.1(c) (“Ultimately, of course, it is not better documents but better decisions that count. . . . The NEPA process is intended to help public officials make decisions that are based on an understanding of environmental consequences, and take actions that protect, restore and enhance the environment.”); § 1502.1 (An EIS “is more than a disclosure document. It shall be used by Federal officials in conjunction with other relevant material to plan actions and make decisions.”); § 1502.2(g) (EISs “shall serve as the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made.”); § 1502.5 (“The [environmental impact] statement shall be prepared early

enough so that it can serve practically as an important contribution to the decision-making process and will not be used to rationalize or justify decisions already made. . .”).

To use climate change as an example, now that the GW will prepare an EIS, the GW can and should fully analyze the likely effects (or range of effects) of climate change on the forest and consider alternatives that would improve the GW’s ecosystems’ resiliency and ability to adapt to them. We are glad to see the Summary of the Need for Change recognize that climate change is a developing issue that will require more attention. A climate change-oriented alternative might be quite different from the revised plan currently proposed. The GW must be willing to take a hard look at this issue and seriously consider such an alternative. The same can be said for fish and wildlife species population viability.

We are very concerned that all the planning information and draft documents released with the NOI are so strongly geared towards the GW’s proposal, particularly at this early NOI stage. For example, it is telling and concerning that the GW is calling its proposal/preferred alternative the “Need for Change Alternative.” This easily could suggest to the general public that other alternatives, such as the remote recreation and habitat alternative and hopefully other alternatives which will be developed, do not respond to the Forest Service-identified need for change or are not based on the agency’s analysis, implying they are second-class or “out of the blue” alternatives, when instead those other alternatives represent different ways of responding to agency- and public- identified issues or needs for change. We are concerned that this approach to the alternatives will prevent serious consideration of other alternatives by both the public and the Forest Service.

Further, it is disturbing that, before conducting the environmental analysis in the EIS, the Forest Service has already made certain conclusions about environmental impacts. For example, the agency has concluded that forest fragmentation and road density are not significant concerns. See Summary of Need for Change at 2 (Mar. 2010); Draft Evaluation of the Need for Change at 5 (Mar. 2010). The EIS should assess the effects of forest fragmentation and of the road system (open and closed roads) on terrestrial and aquatic species, including effects of sedimentation from open and closed roads on water quality and aquatic species. The conclusions of the draft CER are absolutely no substitute for those reached in a proper EIS, which must meet certain basic NEPA sideboards for adequate analysis, disclosure and consideration of scientific information, including different points of view. See, e.g., 40 C.F.R. § 1500.1(b) (high-quality information, accurate scientific analysis, expert agency comments, and public scrutiny are essential); § 1502.1 (EISs “shall provide full and fair discussion of significant environmental impacts”); § 1502.9(a), (b) (agencies shall make every effort to disclose and discuss in draft EISs “all major points of view on the environmental impacts”).

Moreover, the GW plan now will be revised under the 1982 NFMA regulations, which are substantively different from the 2005/2008 rules under which the revision was begun and this draft developed. All of the analysis performed to date and posted to the GW website, such as the ecosystem and species diversity reports and the aquatic sustainability analysis, explicitly is based on those now-invalidated 2005/2008 rules. The analysis is framed around the “sustainability” concept of the 2005/2008 rule, not the very different diversity and viability provisions of the 1982 rule. Now the 1982 rule applies, an EIS will be prepared, and the Forest Service formally

will consult with the FWS regarding threatened and endangered species. The Forest Service will need to be very careful to prevent this plan from being tainted by the illegal provisions of the 2005/2008 rule. For example, the 1982 rule's viability and other requirements must be fully embraced and met.

The GW will need to be very open-minded to changing its proposals, and all further planning must be well-grounded in the NEPA environmental analysis and in the procedural and substantive requirements of the 1982 NFMA regulations. As it stands now, the draft appears to be a freestanding, predetermined proposal/outcome that was not developed based on the required process, analyses and factors laid out in NEPA and NFMA and their regulations. If the GW continues to rush down the track towards this proposed plan, the plan may violate the NEPA and NFMA provisions cited above and be arbitrary and capricious, see Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (U.S. 1983) (agency decision arbitrary and capricious if agency did not examine relevant data and factors, relied on improper factors, or entirely failed to consider important aspect of problem).

A final note regarding the process: we believe the GW should provide an opportunity for a post-decision administrative appeal, rather than the pre-decisional objection process proposed in the NOI.

B. Significant Issues

The following issues (as well as any other issues raised elsewhere in these comments or in our prior comments on the plan revision, including in our August 2008 and June 2009 comments)² should be identified as significant issues and studied in the EIS and alternatives should be developed around them. Many of these have not yet been examined, or not adequately examined, in the revision process.

- Plant and animal species diversity, including direct, indirect and cumulative effects of various plan alternatives on diversity.
- Fish and wildlife species population viability, including direct, indirect and cumulative effects of plan alternatives on species viability, the identification of management indicator species (MIS) and the plan for monitoring MIS populations.
- Rare and at-risk species, including federally Threatened, Endangered, Sensitive and Locally Rare species, and species in need of conservation identified in the Virginia Wildlife Plan. Regarding federally listed species, we understand and are glad to hear that the Forest Service plans to formally consult with the U.S. Fish and Wildlife Service (FWS) regarding the plan revision. Indeed, we believe such consultation is required by the Endangered Species Act (ESA), 16 U.S.C. § 1536(a)(2), the consultation regulations at 50 C.F.R. part 402, and caselaw, see, e.g., Pacific Rivers Council v. Thomas, 30 F.3d 1050, 1053 (9th Cir. 1994); Lane County Audubon Soc'y v. Jamison, 958 F.2d 290, 293 (9th Cir. 1992). Among other issues, the Forest Service's biological assessment and the

² Throughout, we will refer to prior comments submitted Aug. 8, 2008, by SELC, The Wilderness Society (TWS), SAFC, the Virginia Wilderness Committee (VWC), and Wild Virginia as our "August 2008 comments." We will refer to prior comments submitted June 8, 2009, by SELC, SAFC, VWC, Virginia ForestWatch, the Sierra Club-Virginia Chapter, and TWS as our "June 2009 comments."

FWS' biological opinion should consider new information since previous consultations regarding the potential effects (including cumulative effects) on listed bats of white nose syndrome, wind energy and oil and gas development, and the GW's new proposal to expand the lands suitable for timber production (see also our August 2008 comments, pp.68-72).

- Old growth forest – all existing old growth should be protected. Old growth prescriptions are needed, as in the revised Jefferson National Forest (JNF) plan.
- Watershed protection, water quality and quantity, and aquatic habitat, including direct, indirect and cumulative effects on water quality and quantity (including drinking water quality) and on aquatic habitat (including habitat for rare species and native brook trout), and alternatives for improving water resources. Include analysis of effects of Forest Service road system on water quality and habitat and consider alternatives that would reduce those impacts. Address impaired streams (i.e. streams not meeting Virginia water quality standards) within or downstream of the Forest and consider how National Forest management could ameliorate those impairments or at least avoid contributing to them (see 33 U.S.C. § 1323, requiring federal agencies to comply with state water quality standards, which prohibits agencies from causing or contributing to violations of such standards). Need watershed management prescriptions for certain watersheds, including Source Water Protection, Reference Watersheds, Watershed Restoration Areas, and Aquatic Habitat Areas, as in the JNF plan.
- Climate change, including the direct, indirect and cumulative effects of climate change on the forest's ecosystems and alternatives for increasing the forest's resilience and adaptation to climate change and for mitigating the effects of climate change through carbon sequestration.
- Ecological restoration (see our August 2008 comments, pp.41-42, and our June 2009 comments, p.5).
- Recommendations for additional Wilderness, National Scenic Area (NSA) and National Recreation Area (NRA) designations, including a range of reasonable alternatives and analysis of the environmental effects of choosing not to recommend areas for wilderness designation and, therefore, not allocating them to the protective recommended wilderness study prescriptions. See California v. Block, 690 F.2d 753, 764 (9th Cir. 1982) (requiring site-specific evaluation of impact of not recommending wilderness designation upon each area's wilderness characteristics and value).
- Lands to be made available to BLM to lease for oil and gas development, including thorough, careful consideration of the direct, indirect and cumulative impacts of development using hydraulic fracturing in the formations underlying much of the GW.
- Lands available for special uses, including industrial wind turbine facility development. For the reasons detailed in our August 2008 comments, we continue to believe that the entire forest should be generally unsuitable for utility-scale wind turbine facility development, and the EIS should consider such an alternative.
- Identifying and planning to achieve the required "minimum road system" (see our Aug. 2008 comments, pp. 43-47, and June 2009 comments, pp. 4-5). Include disclosure of present extent of road system (i.e. all roads, including maintenance level 1-2 roads), road density (including achievement or non-achievement of 1993 plan standards/objectives), and maintenance backlog and maintenance costs. We also want to note here that the GW

should better explain its proposal to establish a mileage objective for high-clearance roads for OHV use (see Summary of Need for Change at 8) and consider the impacts.

- Ecosystem services, including the benefits of clean air and water, and the economic benefits from outdoor recreation and tourism on the GW.
- Lands suitable for timber production and timber harvest levels, including proper identification, according to the 1982 regulations, of lands suitable for timber production, as well as the full disclosure of the costs and receipts of the timber program (i.e. disclosure and assessment of the below-cost timber program, as well as the amount of unsuitable land planned for timber harvest and the reasons for said harvest).
- Establishing a monitoring program that requires clear, measurable objectives for management projects implementing the forest plan and that can measure the extent to which projects achieve their objectives.

C. Alternatives

As noted above, under NEPA, EISs must consider alternatives to the proposed action and federal agencies must “study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.” 42 U.S.C. § 4332(2)(C)(iii), § 4332(2)(E). Consistent with this statutory directive, the NEPA regulations require that

Federal agencies shall, to the fullest extent possible: [u]se 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.

40 C.F.R. § 1500.2(e) (emphasis added).

EISs must “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.” § 1502.1. Adequate consideration of alternatives is the “heart” of the NEPA process because it defines the issues and provides a clear basis for choices among options by the decisionmaker and the public. § 1502.14. The Forest Service must “rigorously explore and objectively evaluate all reasonable alternatives. . .” § 1502.14(a). The failure to consider a “viable but unexamined alternative” will render a study inadequate. Dubois v USDA, 102 F.3d 1273, 1289 (1st Cir. 1996), cert. denied sub nom. Loon Mt. Rec. Corp. v. Dubois, 521 U.S. 1119 (U.S. 1997) (quoting Resources Ltd. v. Robertson, 35 F.3d 1300, 1307 (9th Cir. 1994)). Applying these principles requires that “[a]n agency must look at every reasonable alternative, with the range dictated by the nature and scope of the proposed action, and sufficient to permit a reasoned choice.” Idaho Conservation League v. Mumma, 956 F.2d 1508, 1520 (9th Cir. 1992).

The 1982 NFMA regulations also require the consideration of certain alternatives, see 36 C.F.R. § 219.12(f).

The EIS for the GW plan revision must consider a range of alternative ways of responding to or addressing the significant issues, including recommendations for wilderness

designation, climate change, species viability, water resource protection, and the other issues listed above. We offer below some preliminary comments on the range of alternatives for the wilderness recommendations, climate change and species viability, and on the GW's remote alternative.

When considering a proposal to designate wilderness areas in a National Forest, the Council on Environmental Quality has explained that:

“When there are potentially a very large number of alternatives, only a reasonable number of examples, covering the *full spectrum* of alternatives, must be analyzed and compared in the EIS. An appropriate series of alternatives might include dedicating 0, 10, 30, 50, 70, 90 or 100 percent of the Forest to wilderness.” 46 Fed. Reg. 18026 (emphasis in original).

In California v. Block, 690 F.2d 753 (9th Cir. 1982), the Ninth Circuit found that the EIS for RARE II considered an inadequate range of alternatives because the Forest Service failed to “seriously consider an alternative that allocated more than a third of the RARE II acreage to Wilderness.” Id. at 768. Although the EIS included extreme all wilderness, no wilderness, and no action alternatives, these alternatives were included as “points of reference rather than as seriously considered alternatives.” Id. at 765. None of the other alternatives designated more than 33% of the RARE II acreage to wilderness. Id. The EIS should have considered designating as wilderness “a share of the RARE II acreage at an intermediate percentage between 34% and 100%.” Id. at 766-67. The court also found the Forest Service skewed its alternatives away from wilderness without justifying the trade-offs it made. Id. at 768-69.

Therefore, the EIS for the plan revision must consider a reasonable range of alternatives for Wilderness designation. From the enormous pool of 378,229 acres in 37 areas³ in the “potential wilderness inventory,” the GW currently is proposing to recommend only about 20,000 acres for wilderness designation, in only one stand-alone area and three or four additions to existing wilderness areas.⁴ This is only 5% of the areas evaluated for designation, a tiny fraction of those areas. Currently there are 42,674 acres of designated wilderness on the GW, or 4% of the 1,065,000-acre forest. Invty. & Eval. Working Paper at 25. The Forest Service's proposal would increase wilderness to about 62,674 acres or merely about 6% of the forest.

Only 6% of the Southern Region and 8% of the Southern and Eastern Regions combined are designated Wilderness. Invty. & Eval. Working Paper at 25. This is far below the national average of 18% of national forest lands designated as Wilderness. Although the GW's proposed recommendations would bring the GW in line with the average in the Southern Region, it would still fall below the average in Eastern forests generally. Moreover, Congress long has recognized the need to designate more wilderness in the East (see Eastern Wilderness Areas Act of 1975, Pub. L. No. 93-622, 88 Stat. 2096 (1975)), so the average 6% or 8% in the South or the East

³ There are 378,229 acres on GW/Jefferson in the “potential wilderness” inventory, or 372,631 acres on GW only.

⁴ The Summary of the Need for Change proposes to recommend 20,000 acres of additional wilderness in a new Little River area and in additions to the existing Ramseys Draft, St. Marys and Rich Hole wilderness areas, while the draft management prescriptions document proposes those areas as well as an addition to the existing Rough Mountain wilderness area. The GW should clarify which areas they intend at this point to recommend.

should not be viewed as an adequate benchmark. A range of alternatives that would recommend substantially more wilderness is needed.

We were glad to see the “Emphasis on Remote Recreation and Remote Habitat Alternative.”⁵ This alternative starts to respond to public calls for substantially more wilderness and for protection of the Virginia Mountain Treasure areas, and starts to provide some alternatives and options for the decision-makers and public to choose among. However, by itself it cannot form an adequate range of alternatives.

The remote alternative would recommend a large amount of wilderness (200,000 acres, based on the GW’s presentation at the recent public meetings). Another alternative that should be considered is one that tracks the robust, but somewhat more modest, proposals for wilderness, National Scenic Areas (NSA) and National Recreation Areas (NRA) offered by the Virginia Wilderness Committee (VWC) and by Friends of Shenandoah Mountain. Although the remote alternative contains elements of those proposals (and we appreciate that and are very glad to see them there), it does not entirely track them. An alternative that does so should be developed and considered. The VWC and Friends of Shenandoah Mountain proposals are very reasonable proposals that would provide a key point in the range of alternatives.

It is also important to highlight that those specific proposals themselves are very reasonable. Many of them were developed in cooperation with other forest users, including mountain bikers, with the aim of avoiding user conflicts and VWC remains committed to discussing and refining them collaboratively with other users.

Regarding the Mountain Treasure areas, we greatly appreciate the GW identifying an alternative that assigns the Virginia Mountain Treasure areas to some form of special management. Many of the Mountain Treasure areas contain SBAs and the other special prescriptions listed on pp.2-3 of the remote alternative document. It is not clear whether those prescription areas, if included in the Treasure areas, would still be allocated and mapped. We suggest that most of these should still be mapped and allocated to those special prescriptions which are tailored for specific resources or uses, such as the AT corridor, SBAs, Shenandoah Mountain Crest, Indiana Bat protection areas, and the smaller, highly developed sites such as existing communications sites, developed recreation areas, etc. Then, the remaining Treasure areas could be placed in prescriptions focused on recreation (e.g., remote backcountry or dispersed recreation-unsuitable) or in new prescriptions focused on ecological management (e.g., watershed prescriptions, old growth, or ecological restoration). The Mountain Treasure areas which are roadless areas (i.e. “Inventoried Roadless Areas” or “Potential Wilderness Areas”) should be managed consistent with the 2001 Roadless Rule (discussed further below).

Because we believe that many of the special prescriptions listed on pp.2-3 are already included within the Mountain Treasure areas, which total about 602,432 acres (VMT at 15), we question whether the amount of land remaining for timber harvest would be as small as 150,000-

⁵ We must point out that the chart of the alternative currently contains many incorrect acreage figures for these areas which need to be corrected (for example, Adams Peak, Big Schloss, Catback/Waterfall/Duncan Knob (which again seems to have been confused with the Southern Massanutten IRA), Little River, Rich Hole Addition, Saint Marys Additions, Southern Massanutten, Three Sisters, and many others too numerous to list).

200,000 acres. We also think the chart's pessimistic assessment of the remaining opportunities for creation of wildlife habitat ignores (1) the wildlife habitat provided naturally by these forests, including large tracts of remote, intact mature forest, and early successional forest in canopy openings created by natural disturbances and (2) the opportunities for prescribed fire and light management, other than large-scale commercial timber harvest, where appropriate within some of these areas.

An alternative that recommends substantial wilderness designations, protects roadless areas, and retains some realistic level of timber harvest also should be considered. Such an alternative would contain the wilderness, NSAs and NRAs proposed by VWC and Friends, and would manage all roadless areas (IRAs and newly identified) consistent with the 2001 Roadless Rule. This would contribute to the range of alternatives and would illustrate for the public and decision-makers that the trade-offs between wilderness and roadless area protection and the desired levels of active management and timber harvest may not be as large as depicted, for example, in the current version of the remote alternative.

The remote alternative or a similar one also should be further developed in a way that contains more recognition of the ecological values of remote, intact areas, as well as their recreational values.

It is also important to develop an alternative or alternatives oriented around climate change resiliency and adaptation and around species viability and diversity. The remote alternative might be further developed and refined to respond to these issues or another alternative might need to be developed. For example, climate change planning should provide for and protect core refuge areas (such as the core reserves or matrix forest blocks identified by TNC, as well as any other large or strategically important, intact forest areas), connecting corridors, and any additional areas that are important for ecological diversity and function, such as Special Biological Areas. Climate change planning should take into account the GW's ecologically significant role within the Central or Southern Appalachians.

In another example, it is not yet clear from the ecosystem and species analysis information whether the GW's proposed approach is likely to maintain or improve species viability and diversity. As these climate and species diversity and viability issues are analyzed in the EIS, responsive alternatives, including ones that would maximize climate change resiliency/adaptation and species diversity/viability, should be developed.

We look forward to commenting further on this alternative and others as they are fully developed.

GW staff have asked whether the public is interested in participating in meetings in June about alternatives. We generally believe the Forest Service should make the forest planning information that it has available to the public, so the public can understand where the agency is in the planning process and can comment on the agency's information and the direction the agency is heading with the revision, and should encourage public participation. We did disagree with the GW's approach to the NOI, however, because we believed that even the internal development, as well as the public proposal, of a virtually complete draft plan was premature and

bypassed the proper scoping, environmental analysis, and planning processes. Going forward, it probably would be useful to have public input on the concepts or basic parameters behind the alternatives to be analyzed and it might be possible to accomplish that in June. However, we cannot see how the GW staff will have completed enough of the environmental analysis by next month to present and compare alternatives in detail. Some alternatives might require a level of analysis not possible by June, for example, alternatives oriented around climate change or species viability. So, opportunities for additional, preliminary comment on somewhat more fully developed alternatives may be needed before solidifying those alternatives in the draft plan and EIS published for the 90-day comment period. Overall, going forward the GW should avoid perpetuating the problems with the planning process thus far, as discussed above.

II. Oil and Gas Leasing Availability Decision

The Summary of the Need for Change lists “re-evaluate the oil and gas leasing availability designations” as a main topic identified for change. Summary at page 7. The Notice of Intent, as well as the Draft Evaluation of the Need for Change (the modified Comprehensive Evaluation Report or CER), also list re-examination of the oil and gas leasing availability decision as an important topic for this plan revision. We agree that the availability designations need to change. Further, we believe the Forest must significantly enhance and upgrade its analysis of the potential for, possible extent of, and direct, indirect and cumulative effects of oil and gas development. We are encouraged that the Forest intends to conduct analysis on the availability decision in the EIS; we trust that it will be a robust analysis that mirrors the quality and depth of analysis had a separate EIS for leasing availability been prepared.

The 1993 Forest Plan and EIS did not and likely could not have anticipated the significant changes affecting oil and natural gas development that have taken place in the ensuing years. The Draft Evaluation of the Need for Change touches on the increased potential for natural gas development due to the presence of the Marcellus shale. We do not agree that current economic conditions will continue to limit oil and gas development as the Forest argues. Recent interest in leasing on both private lands within the GWNF proclamation boundary, interest in leasing Monongahela NF (MNF) lands just across the state border and interest in development of the Marcellus indicate an overall increase in leasing interest and potential development. While not the only formation on the Forest, the Marcellus shale has garnered a great deal of interest. As the attached maps “Marcellus Shale Underlying Virginia’s National Forests” and “Marcellus Shale Underlying George Washington NF” (SELC 4/30/2010) show, the Marcellus overlaps the GW/JNF to a large extent, including large, ecologically critical areas such as Shenandoah Mountain. Finally, the revised plan will cover the next 10-15 years; that is the timeframe the Forest must use to assess potential development and its effects, not just the economic climate for development created over the last two years.

Among the changes in oil and gas development since the 1993 evaluation is the increase in the use of hydraulic fracturing, also known as hydrofracking. Hydraulic fracturing entails the use of large quantities of water. Estimates vary depending on the size and depth of the well, but four to seven million gallons of water per well is an often-used figure. In addition, wells are often fracked multiple times in order to maximize the resources extracted. These huge volumes of water are mixed with large volumes of chemicals and sand and then forced under high

pressure down the well in order to blow out the underground seams and increase the volume of oil and gas extracted. Unfortunately, due to a loophole in the Safe Drinking Water Act, the exact chemicals, amounts, and combinations are not known. The oil and gas industry has been allowed to treat this information as a trade secret despite a great deal of evidence that many dangerous and cancer-causing chemicals are being used (for further information, see, e.g., TWS paper “Hydraulic Fracturing – An Unregulated Danger to Our Nation’s Drinking Water” (attached) and sources cited therein; Hydraulic Fracturing and the FRAC Act: Frequently Asked Questions (includes background information re hydraulic fracturing) (attached); summary by Amy Mall, NRDC, of incidents where hydraulic fracturing is a suspected cause of drinking water contamination, at http://switchboard.nrdc.org/blogs/amall/incidents_where_hydraulic_frac.html). Not all of the fracturing fluids are returned to the surface (which presents another set of problems), those that are returned come back heavily contaminated and must be treated at one of a limited number of water treatment facilities or land applied, to often disastrous results as recent events on the MNF can attest (see, for example, PEER press release at http://www.peer.org/news/news_id.php?row_id=1167 (3/11/2009)).

Lest the Forest Service think that the water volumes and myriad problems associated with hydraulic fracturing are limited to Marcellus shale wells, recent industry testimony paints a more accurate picture. The Independent Petroleum Association of America (IPAA) pointed out in their recent written comments to the Environmental Protection Agency (EPA) Science Advisory Board, “The IPAA represents the thousands of independent oil and natural gas producers that develop 90 percent of U.S. wells and produce over 80 percent of U.S. natural gas. Approximately 90 percent of these wells now require the use of hydraulic fracturing.”⁶

The clean water used at the start of the hydraulic fracturing process must come from somewhere and the industry is likely to look to the streams and rivers on the forest. Water withdrawals in other parts of the country have had severe effects on lakes, streams, rivers and reservoirs. Aquatic life, as well as local residents, have been severely affected. The GWNF must examine the full lifecycle of the hydraulic fracturing process, from the examination of water sourcing issues at the beginning of the process to contamination from fracking fluids used in the oil and gas extraction phase to proper treatment and disposal of these fluids at the end of the process.

So too, the GWNF must examine the effects of hydraulic fracturing on water quantity and quality for both the towns that rely on the Forest as a drinking water source and those citizens who rely on individual water wells to supply their drinking water needs. The attached map “Marcellus Shale, Drinking Water Supplies, and Trout Streams, George Washington National Forest,” (SELC 4/30/2010) shows the towns that rely on the GWNF for safe clean drinking water. Clearly the drinking water supply watersheds, as well as important recreational or ecological areas, including but not limited to the riparian corridor, eligible wild/scenic/recreation river corridors, special biological areas, Shenandoah Mtn. Crest, research natural areas, and roadless areas, all of which are proposed to be available for leasing (see GWNF Chart of Suitable Use by Mgmt. Prescription Area (2010)), are especially inappropriate for oil and gas development.

⁶ IPAA comments to the Science Advisory Board Staff Office dated March 28, 2010.

Assessing the effects of hydraulic fracturing will be complicated by the presence of karst landscapes (see attached map “Marcellus Shale and Karst Underlying George Washington National Forest” (SELC 4/30/2010)). Karst is “the term used to describe a special style of landscape containing caves and extensive underground water systems that is developed on especially soluble rocks such as limestone, marble and gypsum... Experience shows that many hydrogeologists mistakenly assume that if karst landforms are absent or not obvious on the surface, then the groundwater system will not be karstic. This assumption can lead to serious errors in groundwater management and environmental impact assessment, because karst groundwater circulation can develop even though surface karst is not apparent.”⁷ Karst is typified by seeps, springs, sinkholes, sinking streams and caves. Hydraulic fracturing in karst increases the risk of contamination to groundwater supplies and, where springs and seeps exist, risks surface water contamination as well.

The analysis for the 1993 plan focused on the impacts of surface occupancy for oil and gas development (e.g., well-pads, access roads, etc.) and on the degree of surface occupancy which would be permitted across the forest. Now, this EIS also must consider these additional, more wide-ranging impacts on water resources (surface- and ground- water) and underground features (such as karst and caves). Further, gas development using hydraulic fracturing requires transport of very large volumes of water, sand and chemicals in many very large trucks making repeated trips just to supply one well. If sand and water are sourced locally they would compete with and pose serious threats to local water supplies, trout streams and other aquatic resources..

The GWNF has discussed the importance of maintaining water quality for downstream users. Many of these same users have commented to the GWNF and passed resolutions on the importance they attach to protecting water quality. Assessing the effects of activities in the riparian zones alone will not adequately address protection of water quality or quantity. The Forest must assess the potential threats to water quantity, quality and aquatic organisms and resources from oil and gas development. In addition to drinking water supplies, Marcellus shale underlies many of the Forest’s best trout streams and special biological areas, to illustrate two of the many important ecological resources at stake, particularly aquatic resources (see attached map “Marcellus Shale, Drinking Water Supplies, and Trout Streams, George Washington National Forest”). For an overview of the many issues that must be considered in analyzing the availability decision, see “The Economic and Social Impacts of Oil and Gas Development” (TWS, June 2006) (attached). Though western in focus, it provides a good overview of the range of topics that must be covered in a complete analysis.

These serious concerns about the effects of gas development using hydraulic fracturing on national forest resources lead us to request that the Forest consider administrative withdrawal of all (full fee, i.e. federal mineral ownership) GWNF lands when analyzing the availability decision. At a minimum, it defines one end of an adequate range of alternatives which must be considered in the EIS. It also represents the potential maximum the GWNF can do (from the leasing standpoint) to ensure protection of drinking water resources and water quantity and quality on the Forest. Clean water is already a concern and is likely to grow in importance over the plan period.

⁷ *Karst Hydrogeology and Geomorphology*, Derek Ford and Paul Williams, 2007 John Willey & Sons, Ltd, pg 1

We therefore believe the Forest should consider and analyze a Forest Plan alternative that maximizes watershed, specifically aquatic, functioning and drinking water quantity and quality. Such an alternative would administratively withdraw all (full fee) lands from leasing, identify a minimum road system with an aggressive focus on eliminating sources of sediment introduction and other problems to water resources by decommissioning unneeded roads and roads causing sedimentation, focus on in-stream habitat functioning and restoration, and minimize other forest uses that might degrade or otherwise fail to enhance water resources.

III. The NFMA Regulations Require An Analysis of the Management Situation.

The 1982 NFMA regulations explicitly require the Forest Service to prepare an Analysis of the Management Situation (AMS) when initiating plan revision. § 219.12(a). An AMS is a determination of the ability of the planning area to supply goods and services in response to society's demands. § 219.12(e). Its primary purpose is to provide a basis for formulating a broad range of reasonable alternatives. *Id.* The benchmark analyses, overviews, and projections in the AMS also play a key role in determining the needs for change. § 219.12(e)(5) (determine the need for change “[b]ased on consideration of data and findings developed in [the AMS]”). Accordingly, the AMS is a necessary component in determining the needs for change, and the GW cannot make a proper, adequately supported decision regarding the needs for change without it. The data and findings mandated for inclusion in the AMS also are needed for other planning analyses, including the development of alternatives.

The Comprehensive Evaluation Report⁸ (“CER”) apparently is the principal document supporting the needs to change identified thus far by the GW, as well as the GW’s draft plan proposing that “Need for Change Alternative.” NOI, 75 Fed. Reg. 11107, 11109 (Mar. 10, 2010) (“information from [the CER] was used to help identify the need for change and the preliminary proposed actions”). However, the CER was developed under the 2005 and 2008 NFMA rules, which were invalidated and under which no AMS was required. See Citizens for Better Forestry v. U.S. Dept. of Agriculture, 481 F.Supp.2d 1059 (N.D. Cal 2007); Citizens for Better Forestry v. U.S. Dept. of Agriculture, 632 F. Supp. 2d 968 (N.D. Cal 2009).

The GW acknowledges that it has not yet complied with the AMS provision. (“[The CER] analysis will be updated with additional information to meet the requirements of the AMS provisions of the 1982 rule.”) 75 Fed. Reg. at 11109. Although the CER identifies factors affecting conditions and trends in the GWNF, states various needs for changes to management direction, and describes the effects suggested changes would have on moving toward desired conditions, that analysis does not contain the mandatory, minimum requirements for AMS. Instead, the GW again has put the horse before the cart, as with the NEPA process, by determining the needs to change, and fully developing a draft revised plan that embodies those changes, before developing the requisite AMS under which those determinations are to be made.

IV. Timber Suitability Determination

Once again, as discussed above, the Forest has gotten ahead of itself in proposing estimations of lands suitable for timber production at the NOI stage prior to public involvement

⁸ The CER has since been updated, and the title has been changed to: “Draft Evaluation of the Need for Change.”

under NEPA. The GWNF potentially is prejudicing the outcome of the timber suitability determination in favor of a greatly expanded suitable land base, all while having failed to complete some of the most critical steps in the determination process; steps which will likely significantly reduce the suitable base rather than increase it. Further, the Forest has arrived at these figures after making a decision as to where management areas would be laid out, yet another significant plan decision under the 1982 regulations which should be the subject of unbiased public involvement.

This revised plan is off to a concerning start, having set public expectations of the outcome at the NOI stage. Having done this, the Forest must pay extra attention to clearly and openly explaining the timber suitability determination process, including the requirements of the 1982 regulations, as the revision process moves along. This disclosure should not be buried only in Appendix B of the draft EIS, as the agency often does.

The evaluation of the need for change discusses the suitability review, but is written from the perspective of the now illegal 2005 and 2008 planning rules. Discussion of lands suitable for timber production, as opposed to those suitable for timber harvest, are a significant new feature of those rules and not applicable to plans created under the 1982 planning regulations. The GWNF must correct this analysis soon as part of the Analysis of the Management Situation (AMS) process and provide the public an opportunity to comment on accurate analysis.

There is also a great deal of inconsistency between the information and likely size of the suitable timber base presented in the Draft Evaluation of the Need for Change and the material presented at public meetings and in the Summary of the Need for Change. The Draft Evaluation discloses a likely suitable base similar in size to the current suitable base. In public meetings and the summary, the Forest has disclosed interest in a much larger suitable timber base. These inconsistencies must be resolved.

Regardless of the current inconsistencies, there is a clearly defined process for determining suitable timber lands that must be followed. The 1982 NFMA regulations at 36 CFR § 219.14 are explicit. The timber suitability determination can be thought of as a three-step process. In the first step, defined in §219.14(a), lands in the following categories are identified as not suited for timber production if: “1) The land is not forest land as defined in §219.3; 2) Technology is not available to ensure timber production from the land without irreversible resource damage to soils productivity, or watershed conditions; 3) There is not reasonable assurance that such lands can be adequately restocked as provided in 219.27(c)(3) and; 4) The land has been withdrawn from timber production by an Act of Congress, the Secretary of Agriculture or the Chief of the Forest Service.

These steps parallel those taken by the Forest Service in Appendix C: Review of Lands Not Suited for Timber Production which appears on the GWNF web site. We take issue with the change in determination for steep slopes and previously inaccessible lands due to the use of helicopter logging. While this change may be appropriate in some locations, one cannot equate the ability to remove timber via helicopter logging with automatic inclusion as suitable land. Helicopter logging does not guarantee that steep slopes are not subject to increased erosion that could result in irreversible resource damage, nor does it guarantee that once timber is removed

from these steep and previously accessible areas that soil conditions will remain amenable to reasonable assurance of adequate restocking. The provisions for timber suitability under subpart (a) are not just about safe and efficient removal of trees but about what would happen to the land afterwards and whether adequate conditions for future growth and ecosystem health can be maintained. The determination of suitability for these lands must be examined from this perspective. This is where the determination of timber suitability conducted to date on the GWNF seems to have left off.

The second step in the timber suitability process is defined at 36 CFR §219.14(b). Here, prior to the formulation of alternatives, the forest must review those lands other than those identified as not suited for timber production in paragraph (a). These still potentially suited lands are reviewed and assessed to determine the costs and benefits for a range of management intensities. These lands must be stratified into categories of land with similar management costs and returns. Appropriate factors that influence costs and returns, such as physical and biological conditions and transportation requirements, should also be considered. The regulations are explicit in their definition of direct benefits (at §219.14(b)(1)) and direct costs (at §219.14(b)(2)) that must be used in this analysis. In addition, the costs and returns of managing the existing timber inventory must also be included (see §219.14(b)(3)).

This step does not appear to have been done yet. This is as it should be, as this is a step in the process usually carried out during the DEIS formulation process after initial public involvement under NEPA at the NOI stage. This makes it all the more problematic that the Forest has presented an incomplete estimation of timber suitability at this stage of the process, without putting it in context.

In addition, this step can only be accurately completed after the Forest has identified its minimum road system under 36 CFR §212.5(b). Decisions made about the minimum size of the forest road system will be critical in determining transportation requirements under the timber suitability determination.

The final step in the timber suitability process is defined at 36 CFR §219.14(c). In this step, alternatives are evaluated to consider the costs and benefits of alternative management intensities for timber production. At this stage, lands shall be tentatively identified as not appropriate for timber production if under an alternative they meet any of the following conditions: 1) the land is proposed for resource use, such as wilderness, that precludes timber production; 2) other management objectives for the alternative limit timber production to the point where management requirements (defined at §219.27) can't be met and; 3) the lands are not cost-efficient over the planning horizon, in meeting forest objectives, which include timber production. This last requirement is likely to limit or decrease the size of the suitable timber base on the GWNF, given forest costs and revenues. It will be essential to accurately and realistically calculate costs and revenues and to disclose them to the public. Finally, lands tentatively identified as not appropriate for timber production in (c) are added to land not suited for timber production identified in (a) and collectively are identified and designated as not suitable for timber production in the preferred alternative.

We look forward to reviewing the determination of timber suitability as it is completed as well as the modeling and estimation of the allowable sale quantity (ASQ). We'll also be interested in the amount of harvest proposed on those lands where harvest may take place for other plan multiple use objectives and the reasons for said proposed harvest.

V. The Proposed Management Indicator Species Are Not Adequate.

Under the NFMA, the Forest Service must provide for the diversity of plant and animal communities. 16 U.S.C. § 1604(g)(3)(B). The NFMA regulations further direct the agency to manage fish and wildlife habitat “to maintain viable populations of existing native and desired non-native vertebrate species in the planning area.” § 219.19. To insure species viability, the Forest Service must select and monitor populations of management indicator species (“MIS”) during plan implementation, in order to assess the effects of management activities on their populations and the populations of other species with similar habitats. § 219.19(a)(1),(6). MIS should be biologically relevant and representative of the forest’s major biological communities, as well as rare species and species with special habitat needs.

Under the 1993 Plan, the GW had 23 MIS. Now the Forest Service is proposing to delete most of them and to adopt the 13 MIS from the Jefferson National Forest (JNF) (with the substitution of the GW’s endemic Cow Knob Salamander for the JNF’s endemic Peaks of Otter Salamander). Those 13 species consist of three game species to indicate hunting demand, eight birds, one endemic, protected salamander, and “wild trout,” which includes stocked rainbows and browns, as well as the native brookie.

These MIS are a very limited assortment of species that do not adequately represent the variety of species and biological communities found on the GW and seem unlikely to indicate forest-wide, long-term, and cumulative effects of management on those species and communities. In fact, there is nothing in the GW’s Draft Evaluation of the Need for Change to indicate that: (1) the choice of MIS reflects a deliberate selection of species to indicate fish and wildlife species viability; (2) the MIS chosen will reflect the effects of management activities on species viability; or (3) the proposed MIS adequately will represent the categories of MIS described in the regulations. The GW should add appropriate MIS in order to meet the requirements of the MIS regulation and to fulfill the intent behind the MIS program.

A. No adequate rationale for the selection of MIS has been provided.

The GW has not yet offered adequate reasoning for its selection of proposed MIS, as required by the NFMA regulations. § 219.19(a)(1) (“Species shall be identified and selected as management indicator species and the reasons for their selection will be stated.”) (emphasis added). The only rationale given for the proposed MIS is that “A complete analysis of MIS was done for the Jefferson Forest Plan. Since the Jefferson and George Washington are administratively combined and share common issues and management direction, it would be more efficient to have the same MIS,” with the substitution of the salamanders. GWNF, Draft Evaluation of the Need for Change at 48.

First, we believe that the JNF’s selection of MIS was not adequate and we challenged it in administrative appeals of the revised JNF plan. So, of course we object to the assumption that those MIS are sufficient for the GW as well.

Second, the viability requirement is specific to the planning area, in this case, to the GWNF, so it follows logically that MIS must represent the range of species and biological communities on the GWNF. The Forest Service needs to consider whether the JNF's MIS are good representatives of the range of GWNF's species and communities, rather than assuming they will be because the two forests share common issues and management direction.

Third, the GW has not justified the proposal to abandon many of the current GW MIS. There is no reasoned analysis for the elimination of over half of GWNF's current MIS and for the overall reduction in the number of MIS selected. Of the GW's 23 MIS, 16 would be deleted (17 counting brook trout, which would be subsumed into the larger "wild trout" category). In most cases, it is not clear whether or how the former GW MIS or their communities will be represented by the new JNF MIS. The effect of lowering these monitoring safeguards on the GW's species viability and ecological diversity needs to be acknowledged and considered in the EIS.

B. The proposed MIS do not represent the categories of species enumerated in the NFMA regulations.

From the chart of proposed MIS in the Need for Change document, pp. 48-49, it is apparent that these MIS represent only overly broad categories (e.g. mature riparian forest and oak pine forest communities), overly narrow categories (e.g. the Cow Knob Salamander, a very narrow endemic species), and management specific outcomes (e.g. game species to meet hunting demand). These MIS do not represent all the categories set forth in the MIS regulation and the GW has not explained why those categories are unrepresented:

"In the selection of [MIS], the following categories shall be represented where appropriate:

- (1) endangered and threatened plant and animal species identified on State and Federal lists for the planning area;
- (2) species with special habitat needs that may be influenced significantly by planned management programs;
- (3) species commonly hunted, fished, or trapped;
- (4) non-game species of special interest; and
- (5) additional plant or animal species selected because their population changes are believed to indicate the effects of management activities on other species of selected major biological communities or on water quality."

§ 219.19(a)(1).

None of the proposed MIS are endangered or threatened and not a single plant species been identified as an MIS. Moreover, the proposed MIS do not appear to represent most of the GW's biological communities or they only partially address the habitat or particular management issue in that habitat. No explanation is provided for whether or how the proposed MIS represent the 20 biological communities identified by the Forest Service within the GWNF. See Forest Service, Draft Ecosystem Diversity Report, p. 7 (listing "ecological systems" which "represent recurring groups of biological communities" in the GWNF.). Overall, the relationship between the ecosystem and species diversity reports and the selection of MIS is not explained. The

ecological analysis should lead to the selection of MIS to monitor the condition of the communities and species identified therein.

Regarding water quality and aquatic species, only one MIS is proposed for water quality, the “wild trout,” which, as discussed below, includes stocked species which are unlikely to be good indicators of other species’ populations. Even the native brook trout, an MIS in the 1993 Plan which should be retained in the revised plan, can only represent those aquatic habitats in which it is found. In smaller stream reaches that do not support trout, additional species sensitive to sediment pollution and other water quality impacts should be designated as MIS.

C. The proposed MIS are unlikely to reliably indicate the effects of management activities.

MIS shall be selected because their population changes are believed to indicate the effects of management activities on important elements of plant and animal diversity. § 219.19(a)(1). Yet most proposed MIS are generalist species not clearly linked to any specific habitat or ecosystem component. Generalist species have broad niches and can tolerate relatively large changes in environmental conditions. As a result, the effects of management activities on generalist species tend to be much less pronounced than on more specialized or less tolerant species. It could not be assumed that populations of rare species or species with special habitat needs are increasing or stable just because a generalist species is increasing or stable.

Further, all but two of the 13 proposed MIS are large mobile mammals and birds whose populations are affected by habitat conditions and activities beyond the GWNF and whose mobility allows them to avoid some negative effects of GWNF management activities. So, their populations may be less affected by management actions than the populations of species with little or no mobility. Of those 11, three also are secure game species (black bear, wild turkey, and white-tailed deer) with broad habitats, which are offered as MIS only for hunting demand.

Consequently, the population trends of most proposed MIS seem unlikely to indicate the full effects of management on other affected species. These proposed MIS may be fine representatives of certain elements, but the GW should recognize their limitations and fill in the gaps with more sensitive species, as well as less mobile species (for example, site-sensitive creatures with limited motility such as salamanders or flightless invertebrates).

The other two MIS are the Cow Knob Salamander and “wild trout.” The Cow Knob Salamander (“CKS”) has an extremely limited range and its habitat is protected by a conservation agreement. As a result, its population trends likely do not indicate the effects of logging, road-building and other actions elsewhere in the Forest on other salamanders or species. While the CKS should be retained as an MIS so that its own populations are monitored, other salamander species should be added as MIS. Terrestrial salamanders “have unique attributes that make them excellent indicators of biodiversity and ecosystem integrity in forested habitats.” Hartwell H. Welsh, Jr. and Sam Droege, A Case for Using Plethodontid Salamanders for Monitoring Biodiversity and Ecosystem Integrity of North American Forests, 136 Conservation

Biology, Volume 15, No. 3, p 558-569, 558 (June 2001) (available at <http://www.fs.fed.us/psw/rsl/projects/wild/welsh/welsh13.pdf>).⁹

Regarding “wild trout,” two of the three species of “wild trout” (rainbow and brown trout) are stocked, introduced species. Species whose populations are manipulated artificially through stocking do not appear to be reliable indicators of the effects of Forest Service land management on water quality or on other aquatic species which rely solely on natural reproduction for their continued existence.

VI. Old Growth

A. Compliance with Old Growth Guidance

The documents provided as Scoping Background Materials at: www.fs.fed.us/r8/gwj/forestplan/revision/plan-home.shtml (e.g., Forest Wide Standards and Forest Objectives) refer to Regional Old Growth Guidance (*Guidance for Conserving and Restoring Old Growth Forest Communities on National Forests in the Southern Region* (Forestry Report R8-FR 62, June 1997)). However, there is little rationale or justification for how or why the specific objectives or standards listed implement the R8 OG policy. Rather, standards and objectives appear plucked from the R8 guidance without proper context or discussion.

Further, while the standards and objectives in background materials address some of the requirements for OG contained in the Regional Guidance, there is a fundamental disconnect between these items and any process to develop these approaches. As pointed out elsewhere in these comments (see Environmental Analysis and Planning Process, Significant Issues and Alternatives section), the background materials essentially make up a highly detailed draft revised forest plan, complete with: forest-wide desired conditions, standards and guidelines. The materials appear to provide materials appropriate to later stages in the planning process without adequately engaging these issues with the public. This is in contrast to the R8 OG Guidance that outlines a process for seeking public involvement in addressing the old growth issue.

The protection, restoration, and management of old-growth forests through an ecological approach is an important issue to many public interests and is a major concern to national forest managers. National forests should actively seek public input and participation while addressing this issue. During this involvement, national forest managers should begin to understand the public’s perception of old-growth forests and their values. Other Federal agencies, State agencies, non-governmental organizations, and academia must be included when developing issues and strategies for old-growth forests. After the public scoping process and following the issuance of the notice of intent (NOI) to revise forest plans, the national forests will clarify and define the old-growth issues for each forest plan. The clarification should include land allocation concerns, biological values and requirements, and social values. Public involvement will be important in

⁹ Salamanders’ “longevity, small territory size, site fidelity, sensitivity to natural and anthropogenic perturbations, tendency to occur in high densities, and low sampling costs mean that counts of [terrestrial] salamanders provide numerous advantages over counts of other North American forest organisms for indicating environmental change.” Welsh and Droege, *supra*.

determining the areas to be allocated to old growth in the forest plan alternatives and in developing the desired future conditions and objectives.¹⁰

B. Developing a Network of Old Growth Areas

Elements of an old growth network are mentioned throughout the scoping background materials. However, the old growth network suggested in these references is inadequate under the R8 Guidance, fails to discuss and disclose issues where choices seem to have already been made, and has fundamentally left the public out of any process of developing an old growth network.

The old growth network suggested in the background materials consists of large, medium, and small patches as directed in the Guidance. However, there is no rationale for how and why the elements of this network are chosen or how the network addresses old growth issues or public concerns. The reliance on wilderness and recommended wilderness as the large patches seems arbitrary. It is flatly stated that the old growth network addresses distribution and representation issues, but no analysis is presented to substantiate this assertion. It is also unclear how medium and small old growth patches are to be selected during plan implementation to complement large patches and create an old growth network. There seems to be conflation of existing old growth with the initial inventory of potential old growth in discussing old growth patches.

C. Confusion of the concepts of Old Growth and mature forest

The background materials frequently use the concept of mature forest as virtually synonymous with old growth. Mature forest, variously described in the background materials as forest greater than 60 years and forest greater than 80 years is fundamentally different than old growth. But the background materials promote a conflation of these concepts. For instance the background document describing “Desired Conditions” makes this statement: “Mature or late seral forests are considered to be those forests that are in the later stages of succession and are generally synonymous with old growth.”¹¹ However, it is clear from the old growth guidance and associated literature that most mature forest does not and will not qualify as old growth for long periods of time. Age, structural, and other criteria distinguish old growth from “mature forest”. Even much of the preliminary inventory of potential old growth will likely not qualify as existing old growth. It may have stand age that indicates old growth but recorded stand ages are frequently incorrect and this says nothing about structural diversity and other characteristics.

The literature cited in the old growth guidance makes it clear that most Southern Appalachian old growth forest is all-age forest as opposed to the even-aged mature forest typical of current national forest lands.

This is an important distinction for a number of reasons. Foremost is the fact that most mature forest is not quality “existing old growth” and will not be for many decades or centuries

¹⁰ *Guidance for Conserving and Restoring Old Growth Forest Communities on National Forests in the Southern Region* (Forestry Report R8-FR 62, June 1997, p. 11-12.

¹¹ “Forestwide Desired Conditions,” Draft – February 2010, p. 15

until it has substantially recovered not only age characteristics but structural diversity and an all-age composition. Treating mature forest in general as recovering old growth inflates what will qualify as existing old growth under R8 OG criteria. Secondly, this conflation ignores the fact that true quality existing old growth is one of the most under-represented forest components while mature forest 60 years and older is among the most abundant. Lumping and conflating mature forest with old growth forest hides this rarity of quality old growth and masks the need to conserve existing old growth. Finally, treating mature forest as forest that will soon be old growth ignores the distortion in age structure and structural diversity that has occurred as a legacy of past management and fails to recognize the restoration tasks that should be a major part of the forest plan. The background materials treat the existing blocks of even-aged forest as a natural condition rather than recognize that this condition is a distortion of natural conditions that should be addressed through restoration while conserving the remaining old growth forest and forest that has legitimately largely recovered.

D. Existing Old Growth

The background materials give acreage objectives for different old growth types.¹² These figures are apparently based on preliminary inventory of old growth based on stand age. There are inherent problems in this approach as detailed in Section C above. The background materials also detail Forest-wide standards for existing old growth.¹³ This standard specifies: “Consider the contribution of identified patches to the distribution and abundance of the old growth community type and to the desired condition of the appropriate prescription during project analysis.” However, it is not at all clear how the distribution and abundance of old growth community types would be assessed since most of the data that would be used is stand age derived potential old growth. It is also not clear how patches of existing old growth identified at the project level would necessarily complement the large patch old growth consisting of wilderness and recommended wilderness to create an old growth network. There is no analysis or justification to lead the public to have confidence that this scheme would have the representation or distribution to satisfy R8 OG Guidance.

The standard (FW-77) further strains public credulity by stating that: “For purposes of project planning, the following forest types are considered well-represented in the current inventory of existing old growth for the George Washington National Forest: the Dry Mesic Oak Type and Dry & Dry-mesic Oak-pine Forests and may be cut through resource management activities.”¹⁴ This statement despite being followed by this statement in FW-78: “NOTE: Because there is no current old growth inventory on the GWNF that has been field verified.....”¹⁵ Clearly the standard is being based on the assumption that possible old growth derived from stand age is equivalent to existing old growth. This would likely lead to the cutting of good quality existing old growth because of the unwarranted assumption that old growth of these forest types is well represented. This assumption is almost certainly incorrect for much of the initial inventory of potential old growth for the reasons detailed in Section C above. At this

¹² Forest Objectives – Need for Change, p.3

¹³ Forest-wide Standards, FW-77 p 9

¹⁴ Ibid

¹⁵ Forest-wide Standards, FW-78 p 9

point the rationale for the forest's old growth network and the approach to existing old growth is circular and based on faulty assumptions and information.

VII. Strategies to Address Climate Change

A. Climate Change Trends and Strategies Document

The GWNF's Climate Change Trends and Strategies document acknowledges some of the specific management strategies needed to address climate change. Many of these would be good strategies, and the document is generally a good start at a framework to address climate change. However, the document is very general and non-specific to the forest, and it leaves the strong impression that the document would be unlikely to lead to standards and objectives relating to climate mitigation or adaptation in the Forest Plan. There is little real analysis, particularly forest specific analysis, discussed in the document relating to climate. See Section D below for specific analysis suggested to inform a climate strategy for the Forest Plan. The life of the Forest Plan is 10 – 15 years or longer. Actions will need to be taken within this time frame to address both climate mitigation and adaptation issues. Adaptive management is appropriate to address climate change, but detailed analysis to inform a strong climate adaptation and mitigation program for the Forest Plan is essential.

Effectively incorporating climate change into the planning process is an essential element for identifying and implementing appropriate adaptation strategies. For example, the Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research¹⁶ makes this assessment:

Incorporating climate change into the USFS planning process is an important step that could be taken now to help identify suitable management adaptations as well as ecological, social, and institutional opportunities and barriers to their implementation.

Planning processes that include an evaluation of vulnerabilities (ecological, social, and economic) to climate change in the context of defining key goals and contexts (management, institutional, and environmental) might better identify suitable adaptive actions to be taken at present or in the short term, and better develop actions for the longer term. Coordination of assessments and planning efforts across the organizational levels in the USFS might better identify spatial and temporal scales for modeling and addressing uncertainty and risk linked to decision-making. Given the diversity of NFS ecosystems, a planning process that

¹⁶ Joyce, L.A., G.M. Blate, J.S. Littell, S.G. McNulty, C.I. Millar, S.C. Moser, R.P. Neilson, K. A. O'Halloran, and D.L. Peterson, 2008: National Forests. In: *Preliminary review of adaptation options for climate-sensitive ecosystems and resources*. A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research [Julius, S.H., J.M. West (eds.), J.S. Baron, B. Griffith, L.A. Joyce, P. Kareiva, B.D. Keller, M.A. Palmer, C.H. Peterson, and J.M. Scott (Authors)]. U.S. Environmental Protection Agency, Washington, DC, USA, pp. 3-1 to 3-127.

allows planners and managers to develop a toolbox of multiple adaptation options would be most suitable.

Because climate change and climate adaptation needs have many elements that will be difficult to predict, the most important goal of management planning should be to maintain and restore the resilience of forest ecosystems.

Healthy natural ecosystems have a great degree of adaptation potential and have adapted to climate changes in the past. Although the rapidity of current climate change is predicted to be much more rapid than climate changes of the past, it is imperative to take advantage of the natural adaptability of ecosystems and the geographic factors that have contributed to climate adaptation and species survival in the past. This dynamic is particularly important in regions such as the Southern Appalachians where high species and ecosystem richness is largely due to successful adaptation over geologic time to a variety of climate changes. The complex mountain topography of the region and the northeast – southwest orientation of the mountains has allowed species to adapt to numerous climate changes during geologic time through short-range as well as long-range movements. The topography has provided a hospitable stage for a wide diversity of species to find suitable habitat within a complex topography in the face of climate changes. This factor, as well as the fact that the southern Appalachian landscape has been continuously vegetated for millions of years (having escaped direct glaciations and being submerged under seas since the Cretaceous–Tertiary extinction 65 million years ago), have resulted in high species diversity and numerous distinct ecosystems within the Southern Appalachians and the southeast, which exemplify incredible resilience and natural adaptability.

In addition to the rapidity of climate change (in and of itself a human induced stressor) the human stressors that have been introduced to these natural systems are the chief impediments to resilience and are major barriers to adaptation. Removing these human induced stressors and thus recovering the natural resilience of our ecosystems should be a major focus of forest planning. This involves at least two components. First, management activities should be put through a screen to determine whether the activities will increase or decrease the stressors on natural ecosystems. This screen or consideration is currently not conducted at the plan or project level, but it should be the major determinant for whether management activities will increase the resilience of our ecosystems. The resiliency of many public forests and watersheds continue to be impaired by unwise logging, ongoing road building, ORV use, and other activities that fail to improve the ecological integrity of public lands and that increase, rather than decrease, the stressors on natural ecosystems.

Additionally, our national forests have the burden of accumulated stresses imposed on them that should be addressed in Forest planning. The Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research¹⁷ points out:

The legacy of past land-use can leave persistent effects on ecosystem composition, structure, and function (Dupouey et al., 2002; Foster et al., 2003). Depending on their scale and intensity, extractive activities such as timber harvesting, mining,

¹⁷ Joyce, L.A., *ibid*

and livestock grazing stress NF ecosystems, affecting their resilience and the services they provide. Current USFS management strategies emphasize mitigation of environmental impacts from these activities (see section 3.3.3). However, the legacy of extractive activities in the past (Rueth, Baron, and Joyce, 2002; Foster et al., 2003) is a continuing source of stress in NFs. For example, past logging practices, in combination with fire suppression, fragmentation, and other factors, have homogenized forest species composition (including a shift from late- to early-successional species); created a unimodal age and size structure; and markedly reduced the number of large trees, snags, and coarse woody debris (Rueth, Baron, and Joyce, 2002; Foster et al., 2003).

These legacy stresses are particularly relevant on the George Washington National Forest and throughout the East where centuries of accumulated stresses exist across the landscape. In these cases it is particularly important to address accumulated stresses through restoration efforts. There is such an accumulation of these human induced stressors to natural ecosystems that restoration should be the primary focus of forest planning and management activities for the foreseeable future. Increasing the resilience of our ecosystems to address climate change through planning should have two focuses 1) identifying the portions of the landscape that have a high degree of remaining integrity and resilience and assuring through management decisions that these areas remain intact and resilient. 2) identifying the portions of the landscape (and the elements of our ecosystems) that are affected by human induced stressors and identifying decisions or management actions that can restore their natural function. These management decisions may involve active or passive restoration but should be guided by science and informed by the discipline of ecological restoration.

Adequately addressing climate change will require the Forest Plan to address resilience at multiple spatial scales. An “all-lands” approach should involve adjacent national forests, national parks and other public land agencies, and Forest Service research stations, as well as USGS Climate Change Centers. This examination of climate adaptation at multiple scales should help inform standards and guidelines in the Forest Plan that incorporate broader adaptation and resiliency needs. For example, this examination could help identify important priorities for refuges and corridors for climate adaptation that would then be incorporated into the Forest Plan. Regional and landscape refuges and corridors that address resiliency across multiple ecological gradients (e.g. taking into account elevational, latitudinal and geological gradients) can be identified in an “all-lands” approach. Standards and guides would represent not only forest level planning but eco-regional planning. It is essential that the planning process be integrated from this eco-regional level down to the project planning level so that projects become an adaptive tool for building resilience.

B. Monitoring and evaluation programs in the Plan should incorporate climate change adaptation considerations.

Data, research, and monitoring also should be assessed and integrated at multiple levels. Monitoring, research, and data will likely not show emerging patterns in climate change and climate change adaptation unless aggregated, analyzed, and assessed at higher levels. Too often monitoring has been regarded as something that is done in conjunction with projects if sufficient

funds and staffing are available. Theories and assumptions that projects are based on are seldom really tested because the monitoring data collected is inadequate to verify or refute these assumptions or the data is not sufficiently assessed. This needs to be turned on its head. Adaptive management to create resilient ecosystems and address climate change depends on gathering and assessing reliable monitoring data to gather accurate information on conditions and to verify or adjust assumptions. Under the principle of “doing no harm”, projects should be unable to be implemented until funds needed for monitoring and assessments of monitoring results are available. Adaptive management should become an integrated loop between the regional/landscape level and the local project level. This is only possible if resources are put into monitoring and assessment at multiple levels.

C. Address Uncertainties in Climate Change through Adaptive Management.

Uncertainty is an important factor in many forest health issues including climate change. A viable option in dealing with uncertainty is to make plans adaptive. The Plan will need to anticipate climate change-related uncertainty and be adaptive to new science and knowledge about changing conditions on the ground. However, this adaptive management and flexibility must be informed by a robust monitoring and assessment program that is transparent and open to the public. The flexibility of adaptive management should also be constrained by meaningful standards and guidelines and by public notice and comment on proposed adaptive changes.

The Plan can acknowledge uncertainty but predict ranges of outcomes or scenarios for regional conditions and trends based on the best science. These ranges of outcomes would give sideboards for management flexibility and adaptive management that inform the public, as well as the agency, of what the limits of adaptive management actions under the Plan are likely to be. The shift between options suggested by different scenarios should be a transparent process open to the public and informed by the best science available, both within and outside the agency, and by public notice and comment.

This type of a scenario-based Plan, as well as the uncertainties of adaptation to climate change, make it imperative that a robust monitoring and evaluation program be in place and be funded and staffed adequately. Monitoring evaluations targeted at identifying ecosystem response to climate change, to natural disturbance, and to management actions should become a regular part of adaptive management. Under a “do no harm” focus for management actions, monitoring and evaluation funds should be tied to project approval so that projects cannot be implemented and potentially add more stress to our natural systems unless funds are also allocated for monitoring and evaluation of project outcomes.

D. The Wilderness Society has suggested Specific Strategies and Recommendations that Forest Plans Should take to Address Climate Change¹⁸

¹⁸ From The Wilderness Society Scoping Comments on the Notice of Intent to Prepare an Environmental Impact Statement for National Forest Management Act National Forest System Land Management Planning Regulations (Feb. 16, 2010). We consider these very relevant to the GW Plan Revision as well.

Strategies and Recommendations:

1. Explicitly account for future climate change through an open process that involves the public in the identification and assessment of key vulnerabilities and the development of strategies to sustain ecosystem services linked to their survival.
2. Select key vulnerabilities by reviewing species and other ecosystem elements and processes that have been identified as of conservation concern and considering their vulnerability, their importance to people and ecosystem function, and the availability of information necessary to sound decision making.
3. Conduct a risk assessment that employs the best available science to characterize vulnerability, uses state-of-the-art modeling to assess likely exposure to climate change and its effects, and documents sources of uncertainty.
4. Include specific strategies to reduce vulnerability by:
 - a. Increasing the size and number of protected reserves.
 - b. Reducing the impact of livestock grazing on vulnerable ecosystems.
 - c. Reducing the impact of recreational visitation by managing off-road vehicle use.
 - d. Reducing the impact of oil and gas leasing and other resource development.
 - e. Restoring degraded ecosystems by:
 - i. Reintroducing fire where appropriate.
 - ii. Closing and rehabilitating roads.
 - iii. Repairing and reconnecting aquatic and riparian habitat.
 - iv. Facilitating the development of old-growth forest.
5. Include specific strategies to reduce exposure:
 - a. Mitigate carbon emissions by:
 - i. Curtailing activities that emit carbon, including:
 1. Forest conversion from old to young forest.
 2. Energy development (particularly oil and gas leasing).
 3. Recreational activities.
 4. Management activities.
 - ii. Facilitating carbon storage through:
 1. Forest protection.
 2. Restoration of low-severity fire and fire-tolerant forest structure.
 3. Restoration of resilient forest cover on degraded landscapes.
 - b. Reduce exposure to the effects of climate change by:
 - i. Treating fuels around communities to protect them from fire.
 - ii. Restoring low-severity fire and fire-tolerant forest structure.
 - iii. Restoring watershed function.
 - iv. Minimizing disturbances that facilitate the spread of invasive species.
 - v. Protecting climate refugia.
6. Include specific strategies for reducing uncertainty by:

- a. Including a detailed plan for adaptive management that can be implemented under realistic budget projections. Such a plan should include:
 - i. A monitoring strategy.
 - ii. A mechanism and schedule for review of monitoring data.
 - iii. A mechanism for public involvement in adaptive management.
- b. Identifying critical research questions necessary for improving adaptation strategies and a plan for accomplishing necessary research.
- c. Including detailed recommendations for management area designations and changes in administration to improve the representation and connectivity of protected area categories to facilitate an experimental approach to adaptation at the landscape scale.

Specific analyses that must be part of an adequate EIS include:

- Analysis of likely climate change under reasonable foreseeable emission scenarios for the planning unit.
- Selection of “key vulnerabilities,” based on vulnerability to climate change, importance, and availability of information.
- Analysis of likely response to climate change for each key vulnerability, including range shifts, behavioral responses, and potential for evolutionary response.
- Analysis of watershed condition and likely impacts of climate change on hydrology and aquatic ecosystems, and opportunities for restoration and road rehabilitation to enhance watershed function.
- Analysis of community vulnerability to wildfire, the location of wildlands fuels that should be treated to protect communities from fire, areas where wildfire can be managed for ecological benefit, and opportunities to manage fuels to reduce negative ecological consequences of unwanted fires. - *Note this generally is not as significant an issue for the GW as Western National Forests.*
- Analysis of size, distribution, and connectivity of the existing protected area system and identification of additions that would enhance connectivity across environmental gradients.
- Analysis of existing and potential biological carbon storage and effects of management for carbon on other resource values.
- Analysis of greenhouse gas emissions from Forest operations and potential for reductions.

E. The Existing Climate Trends and Strategies Document is Particularly Weak in Considering Landscape Connectivity and Corridors in the Context of Climate Change Adaptation.

The Climate Change Trends and Strategies Document mentions reserves and corridors for climate adaptation but does not develop this idea or take the discussion in a direction that could be a meaningful approach in the Forest Plan. The idea of reserves and corridors is increasingly recognized in conservation biology as an essential element of planning for conservation resiliency including climate adaptation. See for example numerous examples in:

“Connectivity Conservation Management: A Global Guide”¹⁹ including Southern Appalachian example.

The Southern Appalachian Forest Coalition’s book: *Return the Great Forest*²⁰ identifies a number of landscape conservation areas in the Southern Appalachian region, several of them including GW National Forest Lands, that should be high priority reserves. The book further proposes linking these landscape conservation areas through corridors. We have also been following The Nature Conservancy (TNC) effort in conducting analysis of matrix forest blocks (or core reserves) and potential corridors in their Central Appalachian Region that includes the GW National Forest. As suggested earlier in these comments on climate change adaptation, strategies should address specific reserves and corridors that species can use for climate adaptation. There is no shortage of proposals along this line. And there is no real disagreement on where these reserves and corridors should be. These reserves are easily identifiable within the most remote lands remaining in the Southern Appalachians: the complexes of wilderness areas, roadless areas, Mountain Treasure Areas, and lightly roaded areas remaining in the region. The GW should identify these landscape conservation areas, or core reserves, or matrix forest blocks using SAFC, TNC, or some of the other widely accepted conservation biology methodology and tools available. These core reserve areas should be connected through corridors using TNC or other initiative’s efforts - or using corridor design tools such as GIS Least Cost Path Analysis or off the shelf corridor design software such as: Corridor Designer Circuitscape, FunConn, etc. Conservation planning along these lines is essential to adequately address the issues around a resilient landscape and to address the needs of climate change adaptation.

VIII. Fire: Wildland Fire and Prescribed Burning on the GWNF

The Need for Change document discloses Forest interest in an increase in the use of wildland fire and controlled (prescribed) burning. We are supportive of the use of both wildland and controlled burning in appropriate environments. We completely agree that not all fire is bad, as noted in the Draft Evaluation of the Need for Change p. 95. We do however have a number of questions in an effort to understand the current proposal and the context for the dramatic increase in the use of prescribed and wildland fire on the Forest. First of all, we would like a copy of the GWNF's approved Fire Management Plan (FMP). Secondly, we'd like copies of any Community Wildfire Protection Plans (CWPP) that have been completed with local communities.

The Draft Evaluation of the Need for Change document describes the various ecosystem types on the Forest. The Yellow Pine Forest Community is described as a fire-dependent habitat type. We note that acreage of this community type has been dropping. Of the acres remaining, how dispersed is this habitat type across the forest? What are the mean patch sizes for this habitat? How large would the typical prescribed burn be in order to maintain this habitat and of what fire intensity? How much and where does this habitat type occur within the wildland-urban

¹⁹ Worboys, Graeme L, W.Frances, and M Lockwood. Ed. 2010. *Connectivity Management: A Global Guide*. Earthscan Publishing. London, England

²⁰ Irwin, Hugh, S Andrew, and T. Bouts, 2002. *Return the Great Forest: A Conservation Vision for the Southern Appalachian Region*, SAFC, Asheville, NC. 112 pp. http://www.safc.org/resources/documents/safc_cv.pdf

interface (WUI)? What effect is or might climate change have on the continued existence of the Yellow Pine Forest Community on the GWNF?

The GWNF is proposing a large increase in the use of prescribed fire. The agency proposes to use prescribed fire to create early successional habitat (ESH) on the forest. First of all, estimations of the need for ESH must take into account conditions and ESH habitat amounts in and around the forest on non-federal land. Large blocks of undisturbed remote habitat connected via corridors are the habitat type most lacking in the eastern and southern US and the federal government is the only landowner likely to be able to provide this kind of habitat.

Secondly, the Draft Evaluation of the Need for Change document cites the period from the early 1700's until the 1930's in describing the historic role and extent of fire in Appalachian ecosystems. Yet this timeframe was a period of unprecedented increases in human habitation of the area and (adverse) alteration of the ecosystem. Fire evidence from this time period could be heavily influenced by direct ignition from areas settlers and residents and reflect natural variability to a very small if negligible degree. What other evidence exists for the historic range and variability of fire in this area?

The proposed use of prescribed and wildland fire to create ESH (see Summary of the Need for Change, pp. 3-4) would seem to imply the use of high intensity fire in order to burn hot enough with sufficient flame lengths to girdle standing trees and not just remove ladder fuels and underbrush. Is the Forest proposing to use high intensity stand replacing fire to create ESH? If so, where would this take place? In general, high intensity, stand-replacing prescribed fire would not be ecologically appropriate for the GWNF, as even the Draft Evaluation of the Need for Change seems to acknowledge, pp. 94-95.

Additionally, the amount of prescribed burning proposed under the two alternatives would lead us to conclude that a significant amount of that increase would be proposed in remote and backcountry areas under the "Need for Change" alternative. Is this accurate?

The Forest definition of ESH is also of interest. Assuming the use of prescribed fire to create ESH, does the forest's definition of ESH include standing trees girdled by fire? Or would salvage logging follow prescribed burning to create ESH? Finally, the forest will have to explain the apparent disconnect of a large increase in the amount of controlled burning and management of unplanned ignitions for resource benefit at a time when air quality standards and requirements are increasing.

As noted above, we are very supportive of the use of wildland and prescribed burning where appropriate. We want to ensure that its use is for restoration, resiliency and maintenance of fire-dependent and / or fire-adapted ecosystems and is not being driven by a misapplication of Western fire ecology to the Southern Appalachian mountains and/or by efforts to secure additional Forest funding from the large pool of fire-related funds. We hope the answers to our questions will reassure us that the latter two are not the case.

IX. Roadless Area Inventory, Protection, and Evaluation for Wilderness Recommendation.

A. Background

Under the NFMA, forest plans must “provide for outdoor recreation (including wilderness), range, timber, watershed, wildlife, and fish. . .” 16 U.S.C. § 1604(g)(3)(A). The 1982 NFMA regulations direct that “roadless areas within the National Forest System shall be evaluated and considered for recommendation as potential wilderness areas during the forest planning process. . .” 36 C.F.R. § 219.17 (1999 ed.). Note that the 1982 regulation is different from the 2008 regulation no longer in force, under which the GW began the inventory and evaluations, see 36 C.F.R. § 219.7(a)(6)(ii) (2008). The 1982 regulation lists certain roadless areas that must be evaluated and sets forth factors to consider in that evaluation. Id. This should be a two-step process, first, a more objective inventory of roadless areas, second, a more subjective evaluation of those areas considering whether to recommend them to Congress for wilderness designation. It is important to distinguish between these two steps. See Robert C. Joslin, Regional Forester, to Forest Supervisors, Re: Inventories for Forest Plan Revisions, at 3 (May 19, 1995) (hereinafter “Regional Forester 1995 Guidance” or “Guidance”).²¹

The Forest Service Handbook (FSH) establishes the process and criteria for the roadless area inventory and evaluations. The handbook used for years, FSH 1909.12, Ch.7 (1992), was revised in 2007 as part of the Bush administration’s attempt to overhaul forest planning (see new FSH 1909.12, Ch.70 (2007)). Among other changes, the 2007 handbook replaced the well-understood “roadless area” term used in both the 1982 NFMA regulations and in the prior handbook with the new, confusing term “potential wilderness areas” and made the roadless area inventory criteria more stringent (discussed further below). For the reasons stated in prior comments, we continue to object to the use of these 2007 directives rather than the prior handbook. Now that the GW is using the 1982 rule, the Forest needs to ensure that its inventory and evaluations comply with the 1982 regulation.

Consistent with the 1982 regulations’ term “roadless areas,” we will continue to use the term “roadless areas” to refer to all the areas in the GW’s inventory of “potential wilderness areas” (PWAs). We will use the term “Inventoried Roadless Areas” (IRAs) to refer to those areas identified in the FEIS for the 2001 Roadless Area Conservation Rule, 66 Fed. Reg. 3244 (Jan. 12, 2001). We will refer to those PWAs which were newly identified in this plan revision, i.e. those PWAs not previously inventoried as IRAs, as the newly or recently identified roadless areas. Because the GW is using the 2007 handbook, however, we will refer to that handbook in making these comments.

The inventory and evaluation of roadless areas, and the recommendation of good candidates for wilderness designation, furthers important goals for the creation and expansion of the National Wilderness Preservation System, as set forth in The Wilderness Act of 1964, the Eastern Wilderness Areas Act of 1975, and the Endangered American Wilderness Act of 1978.

²¹ The GW’s “Guidance on How to Conduct the ‘Potential Wilderness Area Inventory’ for the Revision to the Revised George Washington Forest Plan,” Final Process Paper of Aug. 21, 2008, stated that the GW “will follow guidance contained in” sources including this letter.

B. All Roadless Areas, Whether IRAs Or Newly Identified Areas, Should Be Managed Consistently With the 2001 Roadless Rule.

1. Inventoried Roadless Areas

Our previous comments outlined the important values of roadless areas and the strong support for the 2001 Rule by the public and by the Obama Administration and we will not reiterate them here (see our August 2008 comments, pp. 6-8 and our June 2009 comments, pp. 22-23). We do want to emphasize that the 2001 Rule currently is in effect nationwide, including in Virginia, except in the state of Idaho and in the Tongass National Forest.²² We also want to note that any actions that would be inconsistent with the provisions of the 2001 Roadless Rule require review and approval by the Secretary of Agriculture, establishing an added safeguard for roadless areas.²³

The management of roadless areas in the revised plan, therefore, should be consistent with the provisions of the 2001 Rule, which is the regulation now in force and the policy of this Administration. The GW's current proposal is not consistent. About 8,000 acres within IRAs are proposed for "active management" (Summary of Need for Change at 6), which apparently means timber harvest and road construction not permitted by the Rule. Also, the backcountry prescription assigned to most other IRAs would allow salvage harvest (*id.*), also generally not permitted by the Rule. The IRAs have seen little or no timber harvest since the 1998 moratorium on road-building in roadless areas. Managing IRAs in the plan consistently with the 2001 Rule would provide clarity for the remainder of the planning process and for the life of the plan. The backcountry prescription should be made consistent with the provisions of the Rule and the revised plan should place all IRAs not recommended for wilderness designation in that prescription or in others consistent with the Rule.

2. Newly Identified Roadless Areas

In the "PWA" inventory for this plan revision, the GW identified about 148,000 acres of roadless areas that are in addition to the previous IRAs. These newly identified roadless areas include seven new areas²⁴, new additions to existing wilderness areas²⁵, and expanded

²² In August 2009, the Ninth Circuit Court of Appeals affirmed a 2006 California district court decision which had invalidated the state petitions rule for roadless areas and reinstated the 2001 Rule nationwide. California ex rel. Lockyer v. USDA, 575 F.3d 999 (9th Cir. 2009). Prior to the Ninth Circuit's decision, the California district court had temporarily limited its injunction reinstating the 2001 Rule to the Ninth Circuit and New Mexico, pending the Ninth Circuit's ruling, in order to avoid conflict with a Wyoming district court injunction against the 2001 Rule. So, the Ninth Circuit decision effectively reinstated the 2001 Rule nationwide (except in Idaho and the Tongass National Forest). The Wyoming decision is on appeal to the 10th Circuit Court of Appeals.

²³ See Memorandum from Joel Holtrop, Deputy Chief, National Forest System, to Regional Foresters, et al., re: Activities in Inventoried Roadless Areas, available at http://fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5104601.pdf (Oct. 16, 2009).

²⁴ Our Jan. 2010 letter to the Forest Supervisor stated the GW identified 8 new roadless areas. We want to clarify that one of those, Rich Patch, primarily is composed of the Hoop Hole IRA located on the Jefferson NF, so the GW's "new" Rich Patch area is essentially a small addition of 982 GW acres to an existing JNF IRA. The 7 entirely new, stand-alone roadless areas are: Archer Knob (7,110 ac.), Beech Lick Knob (14,087 ac.), Duncan Knob (Catback Mtn.) (5,973 ac.), Galford Gap (6,689 ac.), Little Mare Mtn. (11,918 ac.), Paddy Knob (5,987 ac.), Potts Mtn./Toms Knob (7,863 ac.) and Shaws Ridge (7,268 ac.).

boundaries for many of the previous IRAs. We strongly believe these newly identified roadless areas should be managed consistently with the previously inventoried roadless areas and with the 2001 Rule.

The GW is proposing to allocate most of these new areas to the suitable timber base, subject to new road construction and logging, based on two premises which we believe to be erroneous: (1) that the inventory criteria for the new areas is less restrictive than the criteria for IRAs and that the new areas did not qualify as IRAs,²⁶ suggesting the new areas have less value than the IRAs and it is acceptable to manage them less protectively; and (2) that the new areas currently are accessible, suitable for timber production, and managed for timber and early successional habitat (Summary of Need for Change at 7).

Regarding inventory criteria, a Forest Service staff member verbally explained that the “PWA” criteria are viewed as less restrictive because of the change in how road density is calculated. The 2007 FSH counts system roads, while the prior FSH counted “improved roads.” The staff member explained that, when IRAs were inventoried under the prior FSH, the GW/Jefferson National Forest counted non-system road beds and prisms in the forest, in addition to system roads, as “improved roads.” Therefore, the 2007 FSH criterion is viewed as less restrictive, because only system roads are counted.

We believe this was an incorrect interpretation and application of the “improved road” criterion. The FSH in effect at the time stated that “improved roads” were “maintained for travel by standard passenger-type vehicles. . . .” FSH 1909.12, Ch.7.11(3) (1992). We firmly believe that non-system roads did not meet this definition (see our Aug. 2008 comments pp.10-11, for further discussion of definition of “improved roads”). These new areas should have been inventoried previously. This illustrates our point that a proper, comprehensive roadless area inventory never has been conducted on this national forest, and that prior inventories excluded many qualifying areas which only now have been recognized by the Forest Service.

Regarding timber suitability and current management, we have conducted GIS analysis which shows that about 76% of the PWAs are not readily accessible for commercial logging. This finding bears out our belief that a major reason these areas still remain roadless, despite not being recognized by the Forest Service until now, is because they are far from open roads, on steep slopes, and are not readily accessible.

Using GIS analysis, we analyzed the newly identified roadless areas to make a rough approximation of which portions of them might be readily accessible for commercial logging. According to GIS data, there are 148,043 acres of newly identified roadless areas on the GW (i.e. the PWAs that are not also IRAs). First, we screened out those portions of the new areas that are more than ½ mile from open roads, i.e. roads listed in the Forest Service’s GIS roads layer as open, restricted or open for administrative use.²⁷ Second, we removed acreage within the

²⁵ Saint Marys (2 new additions totaling 3,284 ac.) and Three Ridges (4 new additions totaling 369 ac.).

²⁶ See GWNF Forest Plan Revision, PWA Inventory & Evaluation, Draft Working Paper, at 8 (Mar. 3, 2010) (hereinafter “Invty. & Eval. Working Paper”).

²⁷ Based on our assumption that it is generally not desirable to construct more than ½ mile of temporary road. The Summary of the Need for Change suggests that additional permanent road construction is not desired or

riparian corridor (within 100' of perennial streams and within 50' of intermittent streams, per USGS hydrological data).²⁸ Third, we removed areas which were unsuitable for timber production in the 1993 plan.²⁹ Fourth, we removed areas on slopes greater than 35%.³⁰ Only about 35,894 acres remained.

This analysis shows that only about 24% or 35,894 acres of the new areas might be readily accessible for logging. About 76% or 112,149 acres of the new areas are not readily accessible.

Of course, this is only a rough approximation. It may be physically possible to harvest timber on some of the screened out acreage, although we doubt it would be economic in most cases, and the Forest Service could point out chunks of remaining, more accessible land in some of the new areas. And other factors could be considered, such as site productivity. However, in the big picture, this analysis illustrates the general lack of good road access, existing unsuitability, and topographical barriers in the new roadless areas. It shows that placing all of the newly identified roadless areas into unsuitable prescriptions would not result in a significant loss to the most accessible, suitable timberland – perhaps a loss of only about 35,894 acres or 10% of the 350,000-acre suitable base under 1993 plan.

Our analysis particularly calls into question the claim that “much” of the new areas “is currently suitable” and “has been actively managed within the past 15 years,” Summary of Need for Change at 7, which implied that current management would have to change significantly if these areas were designated unsuitable. We think that is not the case.

Even if it were the case, fundamentally these newly identified areas are roadless areas which have the important values of roadless areas, should not be treated as second-class areas because they were only recently recognized, and should be protected consistently with the previously inventoried areas and with the standards of the 2001 Rule. It is important to protect these areas in their entirety in order to fully protect their roadless characteristics, to prevent those characteristics from being diminished, and to prevent alterations such as road-building and logging in these areas from being used to gradually chip away at and shrink the size of the roadless areas, as has happened with other roadless areas on the GW/Jefferson NF.

contemplated for these areas (claimed new PWAs available for management “without additional permanent road construction.”). We excluded areas near roads closed to all use, because use of currently unused roads by logging trucks likely would require costly road reconstruction.

²⁸ This is the proposed core width of the riparian corridor, which will be unsuitable for timber production. Draft Management Prescription Areas at 83 (Feb. 2010).

²⁹ Areas designated as unsuitable in 1993 have not been managed for timber production in the last 17 years, have seen no recent “investments” in timber production, and are not part of the current suitable base, so designating them as unsuitable again in this plan revision would not reduce or remove any currently suitable land.

³⁰ Based on Virginia BMPs for forestry, which state that “Overland or dispersed skidding on steep slopes should not exceed 35 percent,” and “Where possible, keep bladed or dozed skid trail grades to less than 25 percent. . . .” VA Dept. of Forestry, Virginia’s Forestry Best Management Practices for Water Quality, Field Guide, available at www.dof.virginia.gov/wq/index-BMP-Field.shtml, at 39 (5th Ed., 2010); see also GWNF, Draft Forestwide Standards at 15 (Feb. 2010) (“Use advanced harvesting methods on sustained slopes 35% or greater”). Logging these steep areas would require costly cable or helicopter logging, which, as far as we know, has not been shown to be economic on the GW (i.e. above cost).

C. 1982 NFMA Regulations Require Undeveloped, Previously Inventoried Roadless Areas To Be Evaluated, So Such Areas Excluded From PWA Inventory Must Be Returned To Inventory And Evaluated.

Two IRAs, Southern Massanutten and The Friar, were excluded from the PWA inventory:

- Southern Massanutten IRA – 11,721 ac., Lee RD. Excluded because of private mineral rights. Invty. & Eval. Working Paper at 4.
- The Friar IRA – 3,976 ac., Pedlar RD. Excluded because of size. The evaluation of this area for the 1993 plan revision documented that “The Friars area is extremely steep and rugged. The interior is relatively inaccessible and remote for its small size.” 1993 FEIS for Revised LRMP, App. C-51.

Now that the plan is being revised under the 1982 regulations, these two IRAs must be returned to the PWA inventory and evaluated. The regulations state that “the following areas shall be subject to evaluation (1) Roadless areas including those previously inventoried in the second roadless area review and evaluation (RARE II), in a unit plan, or in a forest plan, which remain essentially roadless and undeveloped. . .” 36 C.F.R. § 219.17(a)(1)(i). Both of these areas were “previously inventoried” in the 1993 GW plan. See 1993 FEIS for Revised LRMP, App. C. Southern Massanutten also was inventoried in RARE II. As far as we know, no disqualifying development has occurred in these areas since the 1993 inventory. Therefore, these two areas “shall be subject to evaluation.” § 219.17(a)(1)(i).

Additionally, from a practical standpoint, these two areas are in the roadless inventory for the 2001 Roadless Rule and are protected by the Rule, so they should remain in the GW’s current inventory. We anticipate the GW may suggest that the Forest Service can track these areas even if not in the current inventory. Unfortunately, the Forest Service has made this claim before regarding uninventoried roadless areas, then has forgotten them because there is no consistent system for tracking them and ensuring they are remembered and considered during forest and project planning.

Indeed, this plan revision is not yet final, but Southern Massanutten already was forgotten or confused. The Inventory and Evaluation Working Paper explained what happened to the prior IRAs since the 1993 plan, noting the wilderness and scenic area designations for three areas and stating that “One other IRA, The Friars . . . does not meet the requirements . . . Therefore it was not given further evaluation as potential Wilderness.” Invty. & Eval. Working Paper at 8. No mention was made of Southern Massanutten in that discussion, although the Working Paper previously stated it was excluded from the inventory (Working Paper at 4).

To add to the confusion, it appears that on some level the GW mixed up Southern Massanutten and Duncan Knob, erroneously listing them as the same area in Table 4 of the Working Paper, although properly discussing them separately in other parts of that same paper. Table 4 lists a “Duncan Knob (Massanutten South IRA)” with 5,973 acres in the 2008 PWA inventory and 11,966 acres in the 1993 IRA inventory. This is an obvious mix-up. Duncan Knob is a newly identified, 5,973 acre area; it originally was proposed in VA Mountain

Treasures as Catback Mtn., 6,386 ac. (VMT at 93). Duncan Knob is located north of Route 211 (see VMT at 93; see GWNF Map of Potential Wilderness Inventory, which shows and labels the correct Duncan Knob area).

Massanutten South IRA is an entirely separate area in a different location. Southern Massanutten is an IRA of about 11,919 acres (see 1993 FEIS for Revised GW Plan, App. C), which was inventoried in the 1993 plan and in RARE II. It lies at the southern tip of Massanutten Mountain, far south of Route 211. *Id.* This mix-up must be corrected and Massanutten South and The Friar must be returned to the current inventory.

The GW also must return to the inventory and evaluate any other essentially roadless and undeveloped RARE II areas and areas inventoried in the 1993 forest plan which were dropped from the initial “PWA” inventory. Such areas include the Great North Mountain and Johnnies Knob portions of the Big Schloss RARE II area. In the 1993 forest plan, the Great North Mountain portion was deleted, without explanation, from the Big Schloss roadless area between the draft and final revised plan, FEIS for 1993 Plan at C-15. Both of these areas remain essentially roadless and undeveloped, as detailed in our August 2008 comments, p. 14, and our June 2009 comments, pp. 12-13, 17-18.

D. Qualifying Areas Have Been Excluded From the Inventory of Roadless Areas.

Our initial August 2008 comments on the revision proposed a number of areas for the roadless inventory. Then, in June 2009, we commented on the draft “PWA” inventory and on the GW’s Review of the Virginia Mountain Treasure (VMT) areas for inclusion in the inventory. Now the GW has released the PWA Inventory and Evaluation Draft Working Paper (3/3/2010), which offers new explanations for excluding certain areas from the inventory. Our comments below focus on responding to that paper.

The NFMA regulations list certain roadless areas which must be evaluated, and the FSH sets forth criteria for the roadless inventory. Under the FSH, roadless areas in the East qualify for placement on the inventory if they meet the following criteria:

1. Areas contain 5,000 acres or more, or
2. Areas contain less than 5,000 acres, but can meet one or more of the following criteria:
 - a. Areas can be preserved due to physical terrain and natural conditions.
 - b. Areas are self-contained ecosystems, such as an island, that can be effectively managed as a separate unit of the National Wilderness Preservation System.
 - c. Areas are contiguous to existing wilderness, primitive areas, Administration-endorsed wilderness, or potential wilderness in other Federal ownership, regardless of their size.
3. Areas do not contain forest roads (36 CFR 212.1) or other permanently authorized roads, except as permitted in areas east of the 100th meridian (sec. 71.12), where the threshold is that “Each area contains no more than a half mile of

forest roads (36 CFR 212.1) under Forest Service jurisdiction for each 1,000 acres, i.e. no more than ½ mile of system road per 1,000 acres.

See FSH 1909.12, Ch.71.1; Ch. 71.12.

Section 71.12 describes criteria for roadless areas in the East, “recognize[ing] that much, if not all of the land, shows some signs of human activity and modification even though they have shown high recuperative capabilities.” Ch.71.12. All of the Eastern criteria regarding naturalness, ownership patterns, and perpetuating wilderness values recognizes that a certain amount of disturbance may be present. See Ch.71.12(1)-(8).

We want to emphasize that we recognize and appreciate the GW’s inclusion of a number of new and expanded areas in the PWA (i.e. roadless) inventory. This inventory, while not yet complete, generally was very good, although it has a few systemic flaws which caused the exclusion of areas which do meet the roadless criteria.

These areas were excluded from the inventory mainly on the basis of (1) their claimed lack of opportunities for solitude, due to (a) an asserted lack of a 2,500-acre “semi-primitive core”; (b) a shape and/or size viewed as undesirable; and (c) influences of “sights and sounds” from outside the areas; (2) manageability concerns; (3) the presence of private mineral rights.

For many excluded areas, these stated reasons are factually incorrect, inadequately supported, and/or are based on improper or inconsistent criteria. In summary, as a result of a Regional and forest-level misinterpretation of the definition of wilderness in The Wilderness Act, the GW’s inventory erroneously focused on solitude, without considering recreation and other wilderness values, and then strayed even further from the Act’s intentions by attempting to quantify solitude using the ROS semi-primitive (SP) lands. The GW also compounded the problem by absolutely requiring 2,500 acre SP cores, rather than using such cores only as a guide and also examining the “on the ground” characteristics of individual areas to assess their opportunities for solitude, as instructed by the Regional Forester’s 1995 guidance.

The guidance and the GW’s inventory (and evaluations) also excluded areas based on “sights and sounds” from outside areas, which legislative history demonstrates Congress does not intend the Forest Service to consider in interpreting and applying the Act’s definition of wilderness. The GW also excluded a number of areas that it viewed as too small, too narrow, or too irregularly shaped to be good wilderness candidates, despite the fact that the agency has inventoried and Congress has designated many similar areas, including in Virginia.

In excluding areas that met the road density and other criteria from the roadless area inventory based on these subjective factors, the GW applied the more subjective wilderness area evaluation criteria to the roadless area inventory, conflating the inventory and evaluation steps. The first, inventory stage should be a more objective inventory that focuses on the road density criteria and does not exclude areas based on subjective evaluations of the ultimate desirability of designating them as wilderness areas.

1. Areas Not Yet Reconsidered.

Our June 2009 comments specifically requested that the GW reconsider 22 areas. The Working Paper addresses most, but not all, of these areas. The areas unaddressed are: Johnnies Knob, Cove Mtn., Falls Ridge, and the full Benson Run area which should be included in the Jerkentight roadless area (part of Benson Run was added, part was excluded). These areas should be added to the inventory for the reasons stated in our August 2008 and June 2009 comments.

2. Mineral Rights

Regarding private mineral rights, the Working Paper lists 14 areas excluded from the inventory because they have less than 70% federal ownership of mineral rights. For two of those, however, Great North Mtn. and Church Mtn., this appears to be factually incorrect, based on the GW's own "Review of Wilderness Society's 'Virginia Mountain Treasures: The Unprotected Wildlands of the George Washington National Forest,' Final Working Paper (Sept. 18, 2008) (hereinafter "VMT Review"). According to the VMT Review, p.4, federal ownership (both subsurface and surface) exceeds 70% in these two areas.³¹

The VMT Review initially excluded these areas for other reasons, to which we responded in our June 2009 comments, pp. 17-19, and documented that the areas meet the road density and other requirements. Then the Forest Service asserted this private mineral rights issue, which appears factually erroneous. Now these two areas should be added to the inventory.

Regarding the other areas subject to private mineral rights, we continue to believe that the presence of private mineral rights, particularly when those rights are unexercised, should not exclude areas from the roadless inventory and is more appropriately considered at the evaluation stage. See our June 2009 comments pp. 14-15 for further discussion.

3. Solitude

The new discussion in the Working Paper indicates that many areas which apparently meet the road density and naturalness criteria, and have the desired 70% federal ownership, were rejected because the GW felt they possessed insufficient opportunities for solitude. Several of these areas initially were excluded in the VMT Review based on road density. In our June 2009 comments, we showed that the areas meet, or could be adjusted to meet, the road density criteria. Now the Working Paper states they will be excluded based on an asserted lack of opportunities for solitude.

The Wilderness Act defines wilderness, in part, as areas which have "outstanding opportunities for solitude or a primitive and unconfined type of recreation." 16 U.S.C. § 1131(c)(2) (emphasis added). Yet, even at the roadless inventory stage, the GW focused on

³¹ According to VMT Review, Great North Mtn. has 14.43% and Church Mtn. has 23.93% in private subsurface ownership. So, both areas have 70% or more federal ownership of mineral rights. The combined federal surface and subsurface ownership in each area also is 70% or greater.

whether areas possess what the Forest Service deems adequate opportunities for solitude, without fully considering recreation opportunities and other wilderness values, an arbitrary and capricious interpretation and application of The Wilderness Act. See, e.g., The Wilderness Act, 16 U.S.C. § 1131(a) (policy) and (c) (definition); § 1133(b) (direction to land management agencies); see generally Doug Scott, Campaign for American Wilderness, Solitude, ‘Sights & Sounds’ and The Wilderness Act: What Can Qualify for Designation as Wilderness? at 2-5 (April 2003) (attached). This focus on solitude continues to be a major, systemic flaw in the roadless inventories, as well as in the evaluations of the roadless areas.

Opportunity for Solitude Is Not An FSH Inventory Criterion

There is no reference whatsoever to the word “solitude” in the FSH inventory criteria. “Solitude” is not and should not be a roadless inventory criterion. The FSH does not mention solitude until the more subjective evaluation phase, see FSH 1909.12, Ch.72.1(3). At the step one, roadless inventory stage, the focus should be on whether areas meet the road density and naturalness criteria. More subjective weighing of wilderness values, which do include but are not limited to solitude, should not be undertaken until the step two, evaluation stage.

Opportunity for Solitude Is Solely Emphasized, Without Consideration of Recreation and Other Values, As A Result of a Misquotation and Misinterpretation of The Wilderness Act.

The imposition of a “solitude” criterion at the roadless inventory stage seems to have come from the Regional Forester’s 1995 guidance interpreting the FSH provision that an area’s location is “conducive to the perpetuation of wilderness values.” FSH 1909.12, Ch.7.11b(4), now Ch.71.12(4). The Regional Forester stated that The Wilderness Act “defines a number of wilderness values. Among those values, Section 2(c)(2) of the Act states that wildernesses must have outstanding opportunities for solitude **and** a primitive and unconfined type of recreation.” Regional Forester 1995 Guidance at 6 (emphasis added).

The Regional Forester critically misquoted the Act, which defines wilderness areas, in part, as areas which have “outstanding opportunities for solitude **or** a primitive and unconfined type of recreation,” 16 U.S.C. § 1131(c)(2) (emphasis added). When the Sierra Club pointed out this misquotation in 1995, the Regional Forester responded that it was a “typing error” and claimed that “nowhere in the guidance do we attempt to give the impression that both the ‘solitude’ and ‘primitive and unconfined type of recreation’ components of this criterion need to be met.” Letter from Robert C. Joslin, Regional Forester, to Rene Voss, Sierra Club-Georgia Chapter, at 2 (Jan. 12, 1996) (attached). Obviously, this response should have clarified that areas do not need to provide both solitude and primitive and unconfined recreation.

In practice, however, the Southern Region and the National Forests within the region, including the GW, adopted the Guidance’s incorrect definition and interpretation of wilderness. Based on the GW’s VMT Review and the Inventory & Evaluation Working Paper, the GW is requiring all areas to provide solitude and is not separately considering their recreation opportunities. This pervasive misinterpretation is evident in the GW’s tables for the roadless area evaluations, which rate “Opportunities for solitude **and** primitive, unconfined recreation” (emphasis added).

There are many forms and aspects of primitive and unconfined recreation, for example, backcountry activities, such as hiking, backpacking, camping, riding, fishing, hunting, paddling, and generally enjoying nature (see FSH 1909.12, Ch.72.1(3)), as well as scenic qualities, ruggedness, naturalness, biological and geological features, and opportunities for physical and mental challenge. Moreover, as discussed further below regarding the evaluations, the Act defines wilderness much more broadly, and sets forth many more wilderness values, than just solitude and recreation. Recreation and other values have not yet been fully considered in the inventory and evaluations; even when the word “recreation” is used in those documents, it is used in the context of solitude.

GW Strictly Is Requiring a 2,500-acre ROS Semi-Primitive Core, Contrary To The Regional Forester’s Guidance.

The Regional Forester and the GW attempted to quantify solitude using the Recreation Opportunity Spectrum (ROS). The Guidance stated that “semi-primitive lands were identified as the lands that best satisfied the solitude qualities of roadless areas. Therefore, it is desirable for the ‘core’ of a roadless area to meet the conditions of a semi-primitive non-motorized or semi-primitive motorized ROS classification.” Guidance at 6. Again, note this focus on ROS to measure “the solitude qualities,” not recreation qualities.

The Regional Forester explained:

“ . . . this 2,500-acre minimum size can be used as a screen to evaluate areas identified and mapped by either the forest or the public.
. . .

However, it is important to recognize that this 2,500-acre semi-primitive "core" size is not an absolute minimum. It is only a screen and as such should be used only as a guide.

Some areas above or below this size, may or may not provide solitude. For these areas, one needs to look closely at topography, proximity to type and use of roads, population centers and other sights and sounds³² of human activity to determine if solitude and primitive and unconfined recreation could be experienced. This is going to be a professional judgement [sic] based on your knowledge of the area.

Two specific areas related to this issue of "solitude" will require close consideration, 1) unaltered RARE II areas with ROS core areas less than 2,500 acres, and 2) areas larger than 5,000 acres with ROS core areas less than 2,500 acres. As referenced above, these areas need to be reviewed based on using the 2,500 acre ROS core as a coarse screen rather than an acreage requirement.”

Guidance at 6 (emphasis added).

³² We do disagree that it is proper, particularly at the inventory stage, to consider “sights and sounds” from outside the areas, as discussed further below.

In practice, however, the GW absolutely is requiring an SP core. Of the stand-alone areas (not wilderness additions) that the GW's working papers considered for the inventory, not a single area, no matter how large or rugged, without a 2,500 acre SP core was added to the inventory. The hard requirement of an SP core is contrary to the Regional Forester's roadless inventory guidance.

Topography and Other Site-Specific Attributes Which Could Provide Opportunities for Solitude Were Not Considered.

The VMT Review and the Inventory and Evaluation Working Paper do not show that the GW "look[ed] closely at topography, proximity to type and use of roads" and other factors in order "to determine if solitude and primitive and unconfined recreation could be experienced," as instructed by the Regional Forester's Guidance. Guidance at 6 (of course, this should be read as "solitude or" recreation, not "solitude and"). Nor do the GW's documents evidence particularly "close consideration" of areas greater than 5,000 acres with SP cores less than 2,500 acres, to determine whether they provide outstanding opportunities for solitude or a primitive and unconfined type of recreation, as the Guidance instructed.

Factors such as the setting of the area, its topography and vegetation, and type and use of roads are highly relevant to this assessment. It never has been demonstrated that a ½ mile pullback from roads (particularly from Forest Service roads closed to or lightly used by the public) is necessary in order to provide opportunities for solitude in the Southern or Central Appalachian mountains, with their thick deciduous forests, rugged topography, and deeply incised drainages. Instead of making this very site-specific analysis, the Working Paper seemed to take a two-dimensional view of the areas and concluded they could not provide solitude because of their shape and proximity to private land.

As a result, areas which meet the road density and naturalness criteria have been excluded from the inventory on the claimed basis that they lack sufficient opportunities for solitude. Some excluded areas are 5,000 acres or more in size and contain substantial amounts of SP acreage (e.g., Sideling Hill, Warm Springs Mtn., Back Creek Mtn. West, and Middle Mtn.). Other excluded areas are less than 5,000 acres in size but do contain 2,500 acres or more of SP land, the required amount, yet were still excluded (e.g., Green Mtn., Elliott Knob South, and Mud Run). All of the areas excluded on this basis should be reconsidered and included in the inventory.

4. Size, Shape and "Sights and Sounds"

Four areas over 5,000 acres in size (Broad Run/Dyers Knob, Sidling Hill, Middle Mountain, and Jerry's Run) were excluded from the inventory because they were viewed as being the wrong shape (long and narrow) and therefore not providing a wilderness experience. Two of these areas have sizeable chunks of SP land (Sidling Hill and Middle Mtn.).

Seven areas less than 5,000 acres in size were excluded for much the same reason (Green Mtn., Signal Knob, Dameron Mtn., Short Mtn., North Mtn., Snake Run Ridge, and Whites Peak/Run). One of these, Green Mtn., is a 4,506-acre area with an SP core greater than 2,500

acres, according to the Invty. & Eval. Working Paper. For some of these areas, outside influences also were cited, such as a boundary shared with private land or bordered by open roads, an ATV/OHV area, an Interstate or a railroad.

Again, in applying these factors, the GW injected the more subjective criteria from the wilderness evaluation stage into the roadless inventory stage.

Regarding the smaller areas, the GW seemed to impose a bar against areas less than 5,000 acres in size. The Wilderness Act defines wilderness, in part, as an area that “has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition.” 16 U.S.C. § 1131(c)(3). Of the 24 wilderness and wilderness study areas in Virginia, 12 (one half) are less than 5,000 acres. GW Inventory Guidance at 17. Clearly Congress believes that areas less than 5,000 acres on Virginia’s national forests can be preserved and used as wilderness.

Yet, before the GW even conducted the roadless inventory, the GW’s Guidance for the inventory stated that “areas less than 5,000 acres in size need to have a very compelling rationale to be included in the inventory” and imposed criteria for areas less than 5,000 acres that are more stringent than those in the Act or the FSH. GW Inventory Guidance at 11. The functional bar against areas less than 5,000 acres in size is evidenced by the fact that not a single area less than 5,000 acres was added to the inventory, even when those areas met road density criteria and possessed a 2,500-acre SP core.

An examination of inventoried roadless areas demonstrates that the Forest Service has inventoried, and Congress has designated as wilderness, areas similar to the ones excluded. Therefore, these are not proper or adequate reasons to exclude areas at the roadless inventory stage. To provide some examples from Virginia:

- The Thunder Ridge Wilderness – narrow, 2,344-acre area primarily on a ridge, bordered by the Blue Ridge Parkway (most of it within ½ mile of the Parkway). No SP core.
- The Stone Mountain Wilderness – 3,270-acre area almost completely surrounded by private land. This area was recommended for wilderness designation by the Forest Service in the 2004 Revised Jefferson plan (as Cave Springs), was designated by Congress, and should have been in the Jefferson’s roadless inventory.
- Garden Mountain Wilderness (3,291 acres) – No 2,500-acre SP core, although, like many areas the GW excluded from the roadless inventory, it does contain a substantial amount of SP acreage (2,284 SP acres). FEIS for Revised JNF Plan at C-57. Forest Service inventoried as roadless and recommended for wilderness designation in the 2004 revised Jefferson National Forest plan.
- Brush Mountain Wilderness (4,794 ac.) and Brush Mountain East Wilderness (3,743 ac.) – Both fairly long, narrow areas on the ridge and sideslopes of Brush Mountain near Blacksburg. Views into a valley with private property. Brush Mountain averages about 1

mile in width and does not have an SP core, see FEIS for Revised JNF Plan, App. C at C-39. Both areas inventoried by the Forest Service.

- James River Face Wilderness – 8,886 acres, with railroad track, state road, and Blue Ridge Parkway on various boundaries.
- Rich Hole Wilderness (I-64 visible, near boundary), Kimberling Creek Wilderness (I-77), Rough Mountain Wilderness (railroad along entire east boundary).

For further discussion of size and shape issues, see our June 2009 Comments at 13-14.

Much of this focus on solitude, size, shape and adjacent private land is interwoven with the GW's consideration of human "sights and sounds" from outside areas. As discussed at length in our prior comments, Congress does not consider "sounds and sounds" from outside wilderness areas and does not intend the Forest Service to consider them when inventorying and evaluating potential wilderness areas to recommend to Congress. See our Aug. 2008 comments, pp.15-16; our June 2009 comments, pp.10-13; and Doug Scott's paper. Disqualifying areas based on outside "sights and sounds" is contrary to the clear legislative intent behind The Wilderness Act.

It also runs particularly contrary to the Eastern Wilderness Areas Act of 1975, which featured Congressional finding that "in the more populous eastern half of the United States there is an urgent need to identify, study, designate, and preserve areas for addition to the National Wilderness Preservation System" and, therefore, "that it is in the national interest that these [areas designated in that Act] and similar areas³³ in the eastern half of the United States be promptly designated as wilderness . . . in order to preserve such areas as an enduring resource of wilderness . . . for the benefit of all of the American people of present and future generations." Pub. L. No. 93-633, § 2, 88 Stat. 2096, 2096 (1975) (emphasis added).

All of the areas excluded for these reasons need to be reconsidered and included in the inventory. Some of them are discussed further below.

5. Examples of Specific Areas

Sidling Hill – The September 2008 VMT Review excluded the 7,155-acre Sidling Hill area from the inventory, citing excess road density. Our June 2008 comments proposed a slightly smaller 5,154-acre area that met road density. Now, the Inventory & Evaluation Working Paper puts forth a new rationale, stating that Sidling Hill, although over 5,000 acres (5,204 ac. in the working paper), "is long and extremely narrow, only 1.5 miles wide at its widest section. . . . over half its boundary is shared with private lands. . . . its long and narrow shape is the limiting factor and does not provide for a Wilderness experience." Invty. and Eval. Working Paper at 4. As the examples above illustrate, Sidling Hill shares attributes similar to Thunder

³³ Note that the areas designated in the Eastern Wilderness Areas Act included areas such as the Gee Creek Wilderness in the Cherokee National Forest, an oblong-shaped, 2,570-acre area, and the James River Face Wilderness in the Jefferson National Forest, an 8,800-acre area located across the James River from a railroad and a state road and bounded on one side by the Blue Ridge Parkway.

Ridge and Brush Mountain and should not be excluded, particularly at this inventory stage, solely on the basis of its shape.

Warm Springs Mountain – 6,194 ac., with 2,220 ac. SP core. Invty. & Eval. Working Paper at 4. Initially, a larger, 7,832-acre area was excluded by VMT Review due to road density and claimed lack of opportunities for solitude. Now the GW has examined a smaller area, but is excluding it from the inventory, not because of existing conditions, but because “private development is encroaching along the southwest border of this area adjacent to the area of core solitude and additional future development is (expected) for this area by Bath County. As this development increases, the opportunities for solitude in this area will be further diminished.” Invty. & Eval. Working Paper at 5.

It is not appropriate to exclude an area based on possible, hypothetical future development, since the focus, particularly at the first, inventory step, is on the existing condition of the area. See FSH 1909.12, Ch.71.1 and Ch.71.12 (present tense in inventory criteria, e.g., “Include areas that meet” criteria); Regional Forester’s 1995 Guidance (“Any areas that meet the roadless area criteria will be added to the inventory.”; again, present tense); Letter from Robert C. Joslin, Regional Forester, to James E. Loesel, SAFC, at 5 (Aug. 9, 1995) (“The roadless area inventory is one that evaluates the existing conditions, not what conditions are being strived for in the future.”).

West Back Creek Mtn. – 5,906 acres, with 2,265-acre SP core. The GW objected to the configuration of this area, because it is pinched in the middle by an intruding “finger” of undeveloped private land. First, it is not clear how this undeveloped private land reduces opportunities for solitude throughout the area, which are substantial in this over-5,000-acre area. Second, the area could be considered as two separate areas separated by the trail in the vicinity of the private land finger (see VMT at 67).

Dyers Knob/Broad Run – 5,057 acres. As stated in our June 2009 comments, Broad Run is a 5,000-acre area with only 0.109 miles of road in it. VMT Review at 7. Broad Run is located along the crest and western slope of Shenandoah Mountain, adjoining Reddish Knob and separated from the Little River Roadless Area only by FSR 85. There is one trail in the area, the Little Stony Trail, which is used by hikers, equestrians and mountain bikers. The area is steep and rugged, deeply incised by numerous small streams, and very sheltered from sights and sounds (see previously submitted topo map showing the ruggedness of most of the area, opportunities for solitude, and proximity to Reddish Knob). The area is very remote with designated roadless areas to the east and national forest land to the west, although it is surrounded by Forest Service roads. This 5,000-acre area should not be excluded simply because it lacks a 2,500-acre SP core.

The Working Paper states only that the area is long and narrow (width between boundary roads less than 1 mile and only 2 miles wide at widest point), is located along the side of Shenandoah Mountain, and has no SP acreage. This does not demonstrate that the area’s site-specific, on the ground attributes were considered, and the Working Paper’s claim that this area does not provide opportunities for solitude or primitive and unconfined recreation runs contrary to that site-specific information. Also, note that Broad Run has attributes similar to Garden

Mountain, Brush Mountain East, Brush Mountain and Thunder Ridge Wilderness Areas (see discussion above).

Short Mountain – 4,647 ac., Warm Springs RD. The Working Paper stated:

“Short Mountain is a x,xxx acre area which is narrow and bounded on the long, northern border by a railroad. It has limited opportunities for solitude and unconfined recreation with a core of only xxx acres of semi-primitive recreation experience.”

Invty. & Eval. Working Paper at 6.

First, it is concerning that the paper lists only blanks (“xxx”) for the area’s total and SP acreage, suggesting the decision to exclude it was made without considering the area’s essential attributes. Second, the railroad on Short Mountain’s boundary is the same railroad that borders the designated Rough Mountain Wilderness, just on the other side of the railroad, so clearly this railroad should not disqualify Short Mountain, particularly at the roadless area inventory stage. Short Mountain also is similar to the Rich Hole Addition, which the GW inventoried and is proposing for recommendation for wilderness designation.

Mud Run Mountain – 4,295 acres, with 2,929 SP acres. The GW acknowledged that Mud Run meets the road density, naturalness, federal ownership, and SP core requirements. Mud Run was excluded from the inventory solely because “managing the area as Wilderness would be nearly impossible” citing limited access and inability to prevent illegal use. Invty. & Eval. Working Paper at 5. This type of manageability issue should not be used to exclude areas from the inventory and should, instead, be considered during the evaluation step. See FSH 1909.12, Ch.72.1(5) (discussing manageability as evaluation factor).

E. Evaluations of Roadless Areas (PWAs) for Wilderness Recommendation

The draft Inventory and Evaluation Working Paper evaluated 37 areas containing 378,229 acres. The GW has the most roadless acreage of any national forest east of the Mississippi River. Many of these roadless areas form the most intact, highest quality natural areas in the entire Central Appalachians, therefore, they are ecologically important in the context of the entire region. See map of George Washington National Forest Portion of Integrity Analysis of Central Appalachians Integrated Landscape, by The Nature Conservancy (4/19/2010) (attached). Many of these areas supply drinking water to local residents, support cold, clear brook trout streams, and contain Special Biological Areas, among many other important natural values. The majority of these most intact lands, however, are not permanently protected by wilderness designation. See Gregory H. Aplet (TWS), et al., Wilderness Attributes and the State of the National Wilderness Preservation System, pp.104-106, and Plate 14 (attached), in H. Ken Cordell (USFS), et al., The Multiple Values of Wilderness (2005).

In addition to their ecological values, these areas provide excellent opportunities for backcountry type recreation in close proximity to major population centers. About 9.2 million

people live within just a 1.5-2 hour drive of the GW,³⁴ plus many more in Richmond and Tidewater, about a half-day's drive from the GW. See our August 2008 comments, pp. 17-18, for further discussion of need and demand for backcountry recreation and wilderness. As noted in the Working Paper, additional wilderness designations are important to the majority of residents around the forest, the permanence of wilderness designation is "very important" to the public, and surveys of visitors document their increasing sense that existing wildernesses are crowded.³⁵

As the Working Paper also notes, the GW is projected to experience the most area of increase in housing density on adjacent private lands of all national forests nationwide. National Forests on the Edge: Development Pressures on America's National Forests and Grasslands, USDA-FS, PNW-GTR-728, at 9 (Aug. 2007). Even within the national forest land, "demands for various uses of public lands are constantly increasing. . . . As this occurs, the lands meeting the criteria for PWAs may decrease." Invty. & Eval. Working Paper at 25.

The Forest Service has the opportunity to recommend wilderness designations to Congress only once every 10-15 years, and frequently longer. The current GW plan is already 17 years old. Yet, against this backdrop of documented need and demand for additional wilderness designations, the recreational and ecological importance of the GW's intact lands, the sense that the wilderness resource on the GW must be secured now or be lost, and an enormous pool of 37 excellent areas covering 378,229 acres to choose from, the GW is proposing to recommend only four or five areas³⁶ for wilderness designation, totaling a mere 20,000 acres, and consisting mostly of wilderness additions, with only one new stand-alone area (Little River).

While we enthusiastically support these recommendations, they alone are not sufficient. This stingy recommendation is at odds with the information at hand, much of it developed by the Forest Service itself, and with Congressional direction encouraging wilderness designations in the East and in proximity to population centers. Yet the GW's draft evaluation tables and working paper do not provide a rationale or basis for the proposal not to recommend 32 of the 37 areas. This is the first time we have seen narrative discussion in the draft evaluations (as opposed to the abbreviated, checklist type tables), which is a positive step. However, from those documents, we still cannot discern the rationale for proposing to recommend a few areas and not recommending many others.³⁷ Areas not proposed for recommendation frequently contain the same characteristics (both positive and negative) as areas proposed for recommendation, and there is no explanation for the different choices. This makes it very difficult for the public to

³⁴ USFS, 2000-2004 NSRE (June 2006).

³⁵ We question the conclusion, based on 2000 and 2008 GW/JNF NVUM results, that wilderness use on the GW/Jefferson is decreasing. If the GW is relying on this in making its wilderness recommendations, the GW needs to make the underlying information available to the public and explain why this conclusion runs contrary to the significant increases in backcountry and wilderness recreation predicted in other Forest Service studies, e.g., in the FEIS for the Revised JNF Plan.

³⁶ It is not clear whether the GW intends to recommend the Rough Mountain Addition; the area is not listed in the Summary of the Need for Change but is listed in the draft management prescription 1.B, recommended wilderness study area.

³⁷ Some additional explanations are given or alluded to in the 2010 Summary of the Need for Change and the January 2009 Summary of How Issues Are Addressed, but this information is not found in the evaluations themselves, is not provided for all areas evaluated, and overall does not constitute a complete or adequate rationale.

comment on or respond to the evaluations. The GW should better explain the rationale behind its recommendations. The failure to do so would render the recommendations arbitrary and capricious. See Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (U.S. 1983) (agency must examine the relevant data and articulate a satisfactory explanation for its action, including a rational connection between the facts found and the choice made).

What is apparent is the great reluctance to recommend wilderness designations. Any potentially negative factor is highlighted, while positive factors often are ignored or diminished, creating an almost impossibly high bar for recommendations.

The information and analysis contained in the tables and the working paper also do not yet meet the minimum requirements for documenting the wilderness evaluations, as set forth in the NFMA regulation and the FSH. The 1982 NFMA regulations describe the evaluation step as follows:

- (2) For each area subject to evaluation under paragraph (a)(1) of this section, the determination of the significant resource issues, which in turn affect the detail and scope of evaluation required by the Forest Service, shall be developed with public participation. As a minimum, the evaluation shall include consideration of:
 - (i) The values of the area as wilderness;
 - (ii) The values foregone and effects on management of adjacent lands as a consequence of wilderness designation;
 - (iii) Feasibility of management as wilderness, in respect to size, nonconforming use, land ownership patterns, and existing contractual agreements or statutory rights;
 - (iv) Proximity to other designated wilderness and relative contribution to the National Wilderness Preservation System; and
 - (v) The anticipated long-term changes in plant and animal species diversity, including the diversity of natural plant and animal communities of the forest planning area and the effects of such changes on the values for which wilderness areas were created.

36 C.F.R § 219.17(a)(2).

The FSH contains additional direction for the evaluations, instructing the Forest Service to evaluate capability, availability and need for wilderness in developing the recommendations. See FSH 1909.12, Ch.72.4 (“Document the results of evaluating potential wilderness areas against characteristics of capability, availability and need. The minimum requirements for this documentation are outlined in section 74.”); Ch. 74 (“Wilderness Evaluation Documentation. This documentation describes the potential wilderness areas and the analysis factors used in evaluating them. . . . The content listed here is the minimum required; supplement as appropriate.”). The Working Paper does not contain that minimum content.

Moreover, as discussed in our June 2009 comments, the factors set forth in the capability and availability tables and in the Working Paper include ones that are more stringent than those set forth in The Wilderness Act, the NFMA regulations, and the FSH and/or evidence

misinterpretations of those laws, regulations and policies. We are very glad to see that a number of the worst criteria have been removed from the revised tables, but other problematic criteria still remain.

1. Capability

The Working Paper's narrative gives only "the characteristics that most contributed to each PWA's meeting, or to not meeting, the capability for Wilderness. . . ." Invty. & Eval. at 13. It is telling, therefore, that the capability discussions focus primarily on solitude and "sights and sounds" factors, such as the size of the SP core, the shape and configuration of the area (with long and narrow areas, areas with shapes or configurations the FS viewed as odd, or irregular boundary lines all viewed negatively), extent of boundary on private land, and views of private land. As discussed above, these are not determinative factors, based on the clear legislative history illustrating Congress' intent for The Wilderness Act and its definition of wilderness.

Moreover, these areas' many wilderness values, other than providing opportunities for solitude for people within the wilderness area, are ignored or glossed over. The multiple wilderness values set forth in The Wilderness Act and subsequent wilderness legislation include, in addition to the solitude that the FS so focuses on: the overarching purposes of protecting and preserving the wilderness character of these areas, in order to secure for the American people an enduring resource of wilderness; recreation; ecological, geological, or other features of scientific, educational, scenic, or historical value; conservation; physical and mental challenge; inspiration; and watershed preservation and wildlife habitat protection. See The Wilderness Act, 16 U.S.C. § 1131(a), (c)(2), (4), and § 1133(b); Endangered American Wilderness Act of 1978, Pub. L. 95-237, sec. 1(b); Eastern Wilderness Areas Act of 1975, Pub. L. 93-622, sec. 2(b).

Regarding recreation, the working paper generally does not discuss the recreation opportunities provided by these areas, such as those listed for consideration in the FSH – hiking, camping, backpacking, riding, fishing, hunting, boating (e.g., kayaking), cross-country skiing, and enjoying nature. FSH 1909.12, 72.1(3). The occasional mention of recreation usually is presented in a negative light – penalizing areas because they contain popular trails or existing mountain bike use, without pointing out the positive aspects of the recreation opportunities offered by these areas (e.g., Big Schloss, Crawford Knob/Mtn., Duncan Knob, Elliott Knob, High Knob, and Three Sisters).

Regarding special uses and values other than recreation, the FSH instructs the Forest Service to determine each area's ability to provide these other values and to identify and describe their contribution to wilderness character. FSH 1909.12, Ch.72.1(4). In addition to the above-listed values set forth in wilderness legislation, the FSH provides the examples of "unique fish and wildlife species, unique plants or plant communities, connectivity, potential or existing research natural areas, outstanding landscape features, and significant cultural resource sites." Id. Again, these generally are not discussed in the evaluations, although some are noted in the tables (e.g., Big Schloss' geologic features; Elliott Knob's position as highest point in the GWNF; landscape connectivity, particularly for areas on Shenandoah Mountain, the largest and least fragmented block of land in the Central Appalachians; presence of documented old growth in Beech Lick Knob). The NFMA regulation requires the consideration of anticipated changes in

plant and animal species diversity, 36 C.F.R. § 219.18(a)(2)(v), but the evaluations only briefly mention species issues and, again, focus on the negative factors (citing species which benefit or might benefit from active management) without recognizing there also are potential benefits to those and/or other species (e.g., wood turtle in Big Schloss, where evaluation claims wood turtle management might be needed, but turtle also probably would benefit from protection from motorized uses).

The GW should consider all of these recreation and other special values in the evaluations. The failure to consider or to fully consider these obviously relevant factors would violate the Forest Service's own regulation and Handbook and render the decision not to recommend these areas arbitrary and capricious, as would continued reliance on improper factors based on misinterpretations of The Wilderness Act, such as sights and sounds, and the overreliance on the solitude core. See Motor Vehicle Mfrs. Ass'n, 463 U.S. at 43 (agency decision will be arbitrary and capricious if agency did not examine relevant data and factors or relied on improper factors).

2. Availability

The NFMA regulations direct the Forest Service to consider the values of the area as wilderness and the values forgone by wilderness designation. 36 C.F.R. § 219.17(a)(2). For the availability analysis, as a starting point, the FSH states that "All National Forest System (NFS) lands determined to meet the wilderness capability requirements are considered potentially available for wilderness designation." FSH 1909.12, Ch.72.2. The FSH elaborates, "However, the determination of availability is conditioned by the value of and need for the wilderness resource compared to the value and need for other resources." FSH 1909.12, Ch.72.2.

The GW's availability analysis was skewed by the above-described failure to fully identify and document all the positive wilderness values and need for wilderness. Therefore, it was impossible for the availability analysis adequately to compare those values to the ones that would be forgone, as the Ch.72.2 requires. While the benefits were not well documented, all non-wilderness uses were thoroughly documented. This created a situation where it was almost impossible for any area ever to meet the availability test, that is, ever to garner enough wilderness "pros" to outweigh every "con," present and future, major and minor, relevant and irrelevant, that were marshaled. The GW set an almost impossibly high bar for wilderness recommendation.

Moreover, where VWC proposed modified, feasible boundaries supported by potentially conflicting user groups, the GW evaluations usually did not say so. Instead, they continued to treat the other use as one that would be foregone, even though it is not an either/or decision. While some joint proposals were recognized (e.g., Little River), it is unfortunate and frustrating to the conservation community that much of the good, hard effort put into resolving potential conflicts has not yet been considered in the evaluations and decisions on the recommendations.

Except for the wilderness additions, the only stand-alone area that apparently met the test, Little River (30,227 ac.), is an absolutely outstanding, unique area. This enormous area is the largest roadless area in the Southern Appalachians and possibly in the entire Eastern U.S. Even

compared to designated wilderness in the Southern region, Little River is second in size only to the Cohutta/Big Frog Wilderness in TN & GA. It also has all the attributes most desired by the FS (it has an incredibly large 20,500-acre SP core, almost no boundary on private land, and has the square shape and regular boundaries that the FS analysis favors). It is unreasonable, and not within the clear intent of Congress or even the Forest Service's own regulations and Handbook, to raise the bar for the availability test to this level.

Other Uses

Regarding the other uses that would be forgone if the area were designated wilderness, the working paper lists them without evaluating their relative importance or context. For example, wildlife openings are noted, but there are a very great many wildlife openings on the forest, and it is our understanding that the Forest Service and Virginia Department of Game and Inland Fisheries lack the budget to maintain them all. So, at least in many areas, the presence of wildlife openings does not seem to be of great importance.

In another example, as discussed above, the GW is proposing to keep most of the newly identified roadless areas in the suitable timber base. Summary of Need for Change at 7. This proposal clearly has shaped the evaluations of these areas, which emphasize their suitable acreage and any past logging. Our analysis showed, however, that most of them (76%) are not readily accessible for logging, so any loss of currently suitable, accessible timberland would be relatively minimal, and the evaluations should recognize that.

3. Forest Service Should Consider Areas or Boundaries that Would Address Apparent Concerns About a Wilderness Recommendation.

The evaluations should consider how boundaries affect an area's manageability as wilderness, FSH 1909.12, Ch.72.1(5), and whether boundary changes would improve manageability, enhance wilderness characteristics or separate incompatible activities, Ch.72.5, and Ch.74(2)(f). VWC and others have proposed several areas with boundaries adjusted to avoid conflicts. In many cases, those proposals would obviate concerns pointed out in the evaluations. The GW should evaluate these areas. Many of them are included in the Remote Alternative, and hopefully will be included in other alternatives, so it is important to evaluate them for wilderness recommendation, to ensure they are seriously considered.

Skidmore Fork (in the new High Knob area), Three High Heads (in Big Schloss), and Whites Peak have not yet been evaluated as separate areas. Other areas have not been considered with the particular boundaries proposed by VWC and Friends of Shenandoah Mountain. The GW should consider and evaluate these areas.

We hope that the Forest Service's early capability criterion of whether areas exceed 7,300 acres, the average size of designated wilderness on the GW (see Draft Working Paper of 8/27/2008, displaying capability and availability factors), has not caused the GW to be reluctant to consider these smaller areas. These smaller wilderness areas can ensure protection for the most remote, intact, core refuge areas within larger landscapes, many of them within larger (hopefully protected) roadless or scenic areas.

Skidmore Fork, VWC proposal 5,228 ac. – The Skidmore Fork area lies within the new High Knob area, which was created by combining and expanding the Skidmore Fork IRA in VA and the Dry River IRA in WV. The January summary indicates that the IDT viewed High Knob as among the best areas to consider for Wilderness recommendation, but noted that the West Virginia DNR has reservations about Wilderness designation. The Skidmore Fork portion, however, is in Virginia and should be considered separately.

The only negative factors mentioned in the evaluation are: “cherry stem” around the Skidmore Fork Road (does not seem to be a major impediment to wilderness); irregular boundary in the north-west portion (in WV, outside Skidmore Fork); past wildlife management, prescribed burning, and suitable acreage (appears to be outside Skidmore IRA, see GWNF, Map of 1993 Plan Mgmt. Areas, North River RD (2/2010)); and the Shenandoah Mtn. Trail, used by mountain bikers, through the middle of High Knob (would be outside Skidmore and would serve as its boundary).

Three High Heads, VWC proposal 5,224 ac. – Three High Heads is a remote area within the interior of the Big Schloss roadless area. The evaluations noted the “outstanding opportunities in the interior [of Big Schloss] for primitive recreation and physical challenge.” Invty. & Eval. Working Paper at 15. Three High Heads seems to contain a significant portion of the SPNM acreage within Big Schloss (see GWNF, Map of ROS-2008 Inventory, 2/26/2010), so wilderness designation is well suited to and would protect a good portion of the most remote, core lands within Big Schloss.

Again, most of the negative factors noted in the wilderness evaluation of Big Schloss do not apply to the Three High Heads portion: dense, popular trail system (only 1.1 mi. of the Sulphur Springs Gap Trail included in Three High Heads); odd overall configuration and private land boundary (not for Three High Heads); suitable acreage, “investments” in wildlife openings and prescribed fire (appear outside Three High Heads, which is in the Big Schloss IRA and the 1993 plan Special Mgmt. Area, was unsuitable, and has no wildlife openings, prescribed fire, or timber harvest within past 15 yrs, per GWNF, Map of 1993 Forest Plan Mgmt. Areas, Lee RD (2/2010)); privately owned mineral rights (not in Three High Heads); Little Stony Creek is limed (outside Three High Heads).

Beech Lick Knob, VWC proposal 11,111 ac. – The evaluation notes that the Great Eastern Trail is being constructed in the western portion of the area. VWC and others have proposed, however, to use the GET as the boundary of the wilderness area. The GW should consider the area with this adjusted boundary. The evaluations also note that most of the boundary is on private land, but the VWC-proposed boundary adjustments minimize the private land boundary.

The Forest Service’s major concern with this area seems to be the presence of some land suitable for timber production, which we discussed above. In the case of Beech Lick Knob, the relatively small amount of suitable, accessible acreage in Beech Lick Knob should not prevent recommendation for wilderness designation of one of the best wilderness candidates on the GW.

Three Sisters, VWC proposal 6,327 ac. – The negative factors noted in the evaluation do not apply to the VWC proposed area: use and maintenance of Appalachian Trail (AT would serve as the boundary for the wilderness, outside the area); private mineral rights (not within the VWC-proposed area); 1.3 miles of open road (VWC proposal would close no roads); suitable timber acreage and past wildlife management (area in remote backcountry MA 9, unsuitable for timber production, under 1993 plan and no wildlife openings shown on GWNF Map of 1993 Forest Plan Mgmt. Areas, Pedlar RD, 2/2010); acidified streams may benefit from future liming (it is possible to lime streams in wilderness, e.g., St. Marys).

F. Wilderness, NSA and NRA Recommendations

The Forest Service should develop and consider an alternative that includes at least the following designations and should make at least the following recommendations:

- National Scenic Area for Shenandoah Mountain, as described in the October 2008 letter to the GW Planning Team from Friends of Shenandoah Mountain. The Scenic Area should contain recommended Wilderness areas for Skidmore Fork, Little River, Bald Ridge (east side of Ramseys Draft addition) and Lynn Hollow (west side of Ramseys Draft addition).
- Wilderness designation for Beech Lick Knob, Laurel Fork, Three Sisters and Whites Peak.
- Additions to existing Wilderness areas: Rich Hole, Rough Mtn., Saint Marys West and South Additions and Three Ridges Additions.
- National Scenic Area for Big Schloss, containing a recommended Wilderness for Three High Heads.
- National Scenic Areas for Adams Peak and Kelley Mtn.
- National Recreation Area for North Massanutten Mountain, including the North Massanutten Mtn., Signal Knob and Duncan Knob (aka Catback Mtn. or Waterfall) areas.
- Wilderness designation for Benson Run and Bolshers Run (these areas lie within or partly within the Jerkemtight PWA), Elliott Knob, Archer Knob, Paddy Lick, Little Allegheny, Oliver Mtn. and Potts Mtn./Toms Knob.

Most of these areas were described and mapped in the Virginia Wilderness Committee's January 2009 letter to the GW Planning Team. We want to bring forward into this new phase of the plan revision all the areas that VWC proposed in January 2009, so that they can be fully considered in this proper planning process and in the EIS. VWC remains committed to discussing and refining these proposals collaboratively with other users.

We request that the Forest Service consider and evaluate these areas based on the boundaries and designations proposed by VWC and by Friends of Shenandoah Mountain. The

Rockbridge County Board of Supervisors supports Wilderness designations for Whites Peak and Three Sisters and a National Scenic Area designation for Adams Peak,³⁸ and we request that the Forest Service consider those boundaries supported by the Board.

X. Conclusion

Thank you for your consideration. Please contact us if you have any questions.



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³⁸ See Rockbridge County Board of Supervisors, Resolution in Support of Forest Protection in Rockbridge County, available at <http://www.co.rockbridge.va.us/Supervisors/minutes/m20090727cont.pdf>, at 3-4 (Jul. 27, 2009).

List of Attachments

1. Maps of Marcellus Shale Underlying George Washington National Forest, by SELC (4/30/2010) (hard copy only):
 - a. Marcellus Shale Underlying Virginia's National Forests.
 - b. Marcellus Shale Underlying George Washington National Forest.
 - c. Marcellus Shale, Drinking Water Supplies, and Trout Streams, George Washington National Forest.
 - d. Marcellus Shale and Karst Underlying Virginia's National Forests.
2. The Wilderness Society, Hydraulic Fracturing – An Unregulated Danger to Our Nation's Drinking Water.
3. *Fact Sheet, Hydraulic Fracturing and the FRAC Act: Frequently Asked Questions.
4. *The Wilderness Society, The Economic and Social Impacts of Oil and Gas Development (June 2006).
5. *Doug Scott, Campaign for American Wilderness, Solitude, 'Sights & Sounds' and The Wilderness Act: What Can Qualify for Designation as Wilderness? (April 2003) (previously submitted and on enclosed CD-ROM).
6. Letter from Robert C. Joslin, Regional Forester, to Rene Voss, Sierra Club-Georgia Chapter, (Jan. 12, 1996).
7. Map of George Washington National Forest Portion of Integrity Analysis of Central Appalachians Integrated Landscape, by The Nature Conservancy (4/19/2010).
8. *Gregory H. Aplet (TWS), et al., Wilderness Attributes and the State of the National Wilderness Preservation System, in H. Ken Cordell (USFS), et al., The Multiple Values of Wilderness (2005) (chapter previously submitted and on enclosed CD-ROM; hard copy of Plate 14 attached for ease of reference).

* Items marked with asterisks are included on CD-ROM only.