December 17, 2004

Forest Planner
White Mountain National Forest
719 North Main St.
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To the WMNF Planning Team:

The Appalachian Mountain Club offers the following comments on the Draft Environmental Impact Statement and Proposed Land and Resource Management Plan for the White Mountain National Forest.

The AMC is a non-profit conservation and recreation organization founded in 1876 and headquartered in Boston, MA. Our 90,000 members include 10,400 citizens of New Hampshire and 3,700 citizens of Maine, as well as thousands of others who visit the White Mountain National Forest (WMNF) each year. The history of the AMC is closely tied to the history of the WMNF, and we have worked in partnership with the Forest Service for many years in areas of mutual interest. Our members were actively involved in the passage of the Weeks Act of 1911, which established the WMNF. We operate a chain of mountain huts that date back to 1888, a visitors' center at Pinkham Notch first established in 1920, 12 backcountry shelters and campsites across the forest, and the Camp Dodge Volunteer Center. Our activities on the forest include trail maintenance, recreation management, visitor information services, search and rescue, education and recreation programs, scientific research, environmental monitoring and endangered species recovery. The AMC thus has a significant and long-standing interest in the management of the WMNF.

The AMC continues to support management of the forest under the multiple use concept, and supports Forest Service efforts to maintain the existing range of uses on the forest. However, maintaining and restoring the health and integrity of ecosystems should be the primary goal of WMNF management, and the relative balance of uses on the forest should reflect this priority. In light of new scientific knowledge, changing public expectations, and increasing demands on the resources and opportunities provided by the forest, our comments on the draft plan are intended to reinforce a management paradigm that emphasizes the protection and expansion of large, wild places on the forest.

The AMC thanks the Forest Service for their hard work during the long process of developing the draft Plan. In general we are very supportive of most aspects of the plan, and our extensive comments are intended to strengthen the plan rather than criticize it. The only notable

differences we have with the proposed plan are in the areas of land allocation and roadless area protection.

SUMMARY OF MAJOR COMMENTS

- Of the alternatives as presented, AMC is most supportive of the land allocation approach of Alternative 3. This is the only alternative that provides significant additional protection to large wild areas on the forest. However, we believe that the land allocation approach could be improved by more specifically targeting land allocation changes at areas of high ecological significance. We have proposed a more carefully focused land allocation scheme that is intermediate between Alternatives 2 and 3.
- The AMC supports proposed Wilderness in the Wild River, Pemigewasett, Sandwich Range and Dartmouth Range areas as delineated in Alternative 3.
- The AMC proposes the inclusion of a forest-wide standard that would prohibit the construction of new permanent roads in Inventoried Roadless Areas.
- The AMC strongly supports the continued prohibition on the summer use of all-terrain vehicles on the forest that is included in both Alternatives 2 and 3.
- The AMC supports the timber and wildlife habitat management approach proposed in Alternative 2.
- The AMC supports the general approach to recreation management that is common to Alternatives 2 and 3, though we have made extensive comments on specific details in this area.
- The AMC supports the proposal to construct up to 25 miles of new non-motorized trail on the forest, though we believe new trail construction should focus on providing recreational opportunities that are currently underrepresented on the forest (such as accessible and easy forest walks, mountain biking, and cross-country skiing) rather than more difficult "hiking only" trails.
- The AMC supports Management Area designations common to Alternatives 2, 3 and 4, including new MAs for the Alpine Zone, the Appalachian Trail corridor and the Wildcat Wild and Scenic River, as well as the proposed Candidate Research Natural Areas and the proposed expansion of the Bartlett Experimental Forest.
- The DEIS should include a more extensive analysis of the regional ecological context of the WMNF, with a particular focus on its important role in providing large roadless natural areas and old forest habitat and the contributions of these conditions to the maintainance of biodiversity across the region.

FOREST PLAN GOALS AND THE REGIONAL CONTEXT OF THE WMNF

The Forest Plan Goals statement is of major importance, in that it sets the context for everything that follows. An important part of this statement is the recognition of the unique role that the WMNF plays in the regional landscape. The forest provides a wealth of conditions and opportunities that are rare across the larger region. These include not only recreational opportunities but also ecological values, primarily those associated with large natural areas.

The second paragraph of the Goals statement (Plan page 1-3) states "The White Mountain National Forest will provide recreation and other opportunities, experiences, and benefits, some of which are not readily available elsewhere." By focusing on recreation, this statement de-emphasizes other values. We recommend that this statement be changed to:

"The White Mountain National Forest will provide ecological, recreational and social opportunities, conditions and benefits, many of which are uncommon across the larger region."

We believe that the lack of adequate consideration of the regional ecological context, and the regionally uncommon ecological conditions that can be maintained on the WMNF (in particular those associated with large roadless natural areas that can be restored to old forest habitat), is perhaps the greatest deficiency of the DEIS. Considerable attention is paid to the regional role of the WMNF in regards to recreational opportunities, as well as to the regional social and economic context. The study commissioned by the Forest Service on this topic (High et al. 2004[1]) is cited extensively in the DEIS. However, the parallel study on biodiversity (Cline et al. 1999[2]) is cited nowhere in the DEIS. Among the significant conclusions of this study was that "The WMNF provides an excellent opportunity to enhance regional terrestrial biodiversity by providing forest habitat conditions that are uncommon on surrounding private forestlands" (page xi) and "Information presented suggests that many of the attributes associated with older forests may only be found in great supply on the WMNF" (page 65). However, within the DEIS, old forest is only discussed in the context of the WMNF land base; nowhere is there discussion of the regional role of the WMNF in providing this habitat. The word "roadless" appears in the DEIS only in the context of Wilderness evaluation. Nowhere is there any information or analysis on the regional contribution of the WMNF to maintaining roadless areas or their value to the conservation of biodiversity.

The value of large roadless natural areas to the contribution of biodiversity, and their scarcity across the larger region, is one of the major justifications for the positions we have taken in the areas of land allocation and Wilderness designation. An extensive scientific literature has developed on this topic since the last Forest Plan was created. Much of this information was incorporated into the EIS for the national Roadless Area Conservation Rule, but it is absent from the WMNF DEIS. Lacking an adequate discussion of these issues, the DEIS short-changes the value of these areas and denies the public an adequate opportunity to fully evaluate the costs and benefits of the various alternatives.

We urge the Forest Service to incorporate a more extensive analysis of these issues in the final DEIS.

LAND ALLOCATION

The WMNF exists in a larger regional landscape in which the surrounding forests are riddled with roads and subject to ever-increasing impacts from development, settlement and private

[1] High, Colin et al. 2004. A Socio-Economic Assessment to Provide a Context for the White Mountain National Forest Plan Revision. Resource Systems Group, Inc., White River Junction, VT.
[2] Cline, Michael L. et al. 1999. Assessment of Terrestrial Biodiversity in the White Mountain National Forest Region.

commercial timber management. Within this landscape, large wild areas that are managed to restore and maintain natural ecosystems are exceedingly rare. However, these areas are a critical component of strategies to maintain natural biological diversity, provide opportunities for remote backcountry recreation that are an important part of a diverse regional forest-based economy, and provide educational, scientific and even spiritual values that cannot be found in areas that are manipulated for human uses (no matter how well-intentioned).

As the largest public land unit in New England and one of the largest in the northeastern United States, the WMNF is uniquely positioned to provide those values associated with large wild places. We believe that the overall ecological and social benefits of WMNF management to the region would be enhanced by putting greater emphasis on the land use that is rare in the region (management for large natural areas) rather than the land use that is relatively common (roaded timber management).

Of the Alternatives as presented, AMC is most supportive of the land allocation approach taken by Alternative 3. This is the only alternative that provides a greater level of protection for large natural areas and increases the representation of a land use condition that is very scarce across the region. It increases the "natural core" of some of the largest wild places in the northeast. Alternative 3 also increases the proportion of the forest included in the Primitive and Semi-Primitive Non-Motorized ROS categories. The WMNF provides the type of extensive backcountry recreational opportunities that are found in few other places of the east, and Alternative 3 enhances this regionally rare component of forest recreational opportunity.

However, by taking a blanket "All RARE II areas removed from MA 2.1" approach, this alternative does not adequately focus land allocation changes on the areas that are of highest priority for stronger protection. Many of the areas removed from timber management are well-suited for this purpose: they have good access, have a history of recent timber management, and are of relatively low ecological significance. Other areas that are of much higher ecological significance are retained in MA 2.1.

Therefore, the AMC is proposing an alternative land allocation scheme intermediate between Alternatives 2 and 3. Our proposal would retain more land available for timber management than Alternative 3, but would provide stronger protection to ecologically signficant areas than Alternative 2 by specifically targeting those areas that we think have a strong justification for management as natural areas.

Our proposal is as follows:

- Begin with the land allocation scheme of Alternative 2.
- Include the Proposed Wilderness (MA 9.1) in the Wild River, Dartmouth Range, Pemigewasset and Sandwich Range areas as they are delineated in Alternative 3. (See our comments under "Wilderness" below for further discussion of these areas.)
- Designate the areas listed below as the most appropriate non-timber MA (generally one of the MA 6 categories). We are not proposing that any of these areas be included in MA 9.1.

In identifying these areas we have considered a number of factors:

- The size of the area.
- Its roadless area status and level of current access.
- Its contribution to maintaining or enhancing large natural core areas.
- History of recent harvesting.
- Productivity (based on ELT classification developed by Steve Fay and Bill Leak).
- Status relative to TNC biodiversity focus areas[3].

Based on this examination, we recommend the following areas be excluded from MA 2.1 (see attached map):

- The entire lower Wild River valley east of the Wild River road. (The upper portion of this area was placed in MA 6.2 in Alternative 3.) The Wild River presents the best opportunity on the WMNF to maintain an entire low-elevation valley bottom in a natural condition. Only about 5% of the WMNF lies below 1000' in elevation, and most of this is lower slopes on the periphery of WMNF ownership. The only two major low-elevation river valleys that extend into the WMNF are the Wild and Swift rivers. The natural character of the latter is compromised by the presence of the Kancamagus Highway. Maintaining the entire Wild River valley in non-timber management would enhance the natural area representation of a landscape feature that is severely underrepresented across the region[4].
- Lands south and west of the proposed Dartmouth Range Wilderness to the Base, Jefferson Notch and Cherry Mountain Roads. Most of this land is within the Dartmouth IRA (2004 version). Placing these lands in non-timber status would expand the natural core of this small but remote area and provide a stronger buffer between the proposed Wilderness and an area of high human use.
- The Great Brook watershed south of the Caribou-Speckled Mountain Wilderness. TNC has identified the area south of the Wilderness as an area of high priority that contains the highest concentration of underrepresented ELTs on the forest. A major portion of the area we have identified lies within the 2004 IRA.
- An area in the Saco River valley near the southeastern corner of the Dry River Wilderness. Identified as a high priority area by TNC, this area was placed in MA 6.2 under Alternative 3.
- Lands within the Sandwich Range IRA (2004 version) east of Sandwich Notch Road. Placing this land in non-timber status would provide additional buffering of the proposed Sandwich Range Wilderness expansion, provide stronger protection to the Kiah Pond Basin (identified by TNC as a biodiversity focus area), and protect the significant cultural features of the Sandwich Notch area.
- The Elbow Pond basin (Carr Mountain North IRA). This has been identified as a high priority area by TNC and was placed in MA 6.1 under Alternative 3. However, the

[3] Based on TNC document "Recommendations to the U.S. Forest Service for the White Mountain National Forest Land and Resource Management Plan (April 2003), TNC's draft comments on the Plan, and conversations with TNC staff.

[4] Also see our comment on "Characterization of Valley Bottom Land Type Association" later in the document.

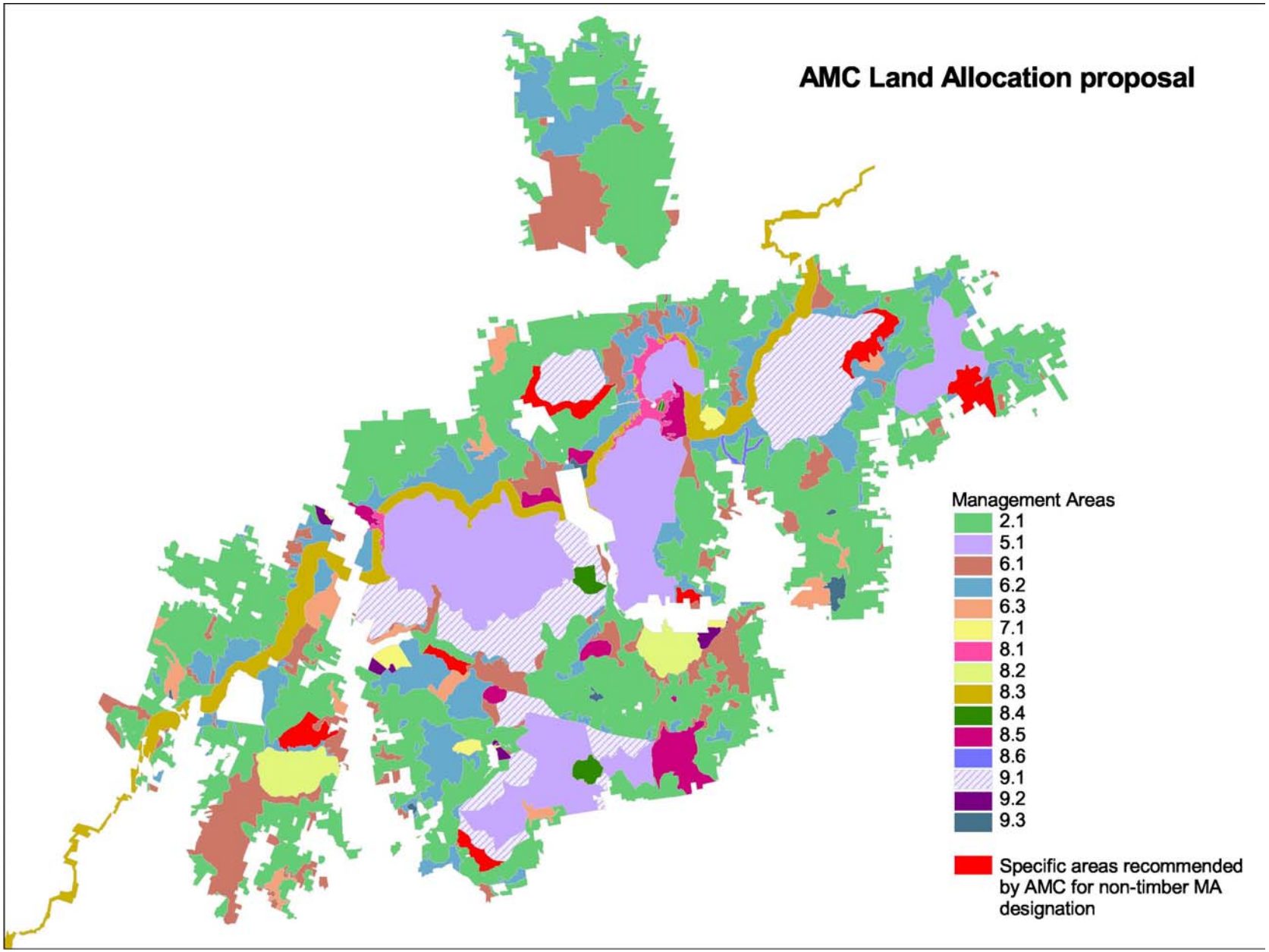
northern portion of this IRA outside of the Elbow Pond watershed should remain in MA 2.1.

- Lower northern slopes of Scar Ridge. Though not in a RARE II area, this area was placed in MA 6.2 at the Forest Service's discretion in Alternative 3. (However, it does lie within the expanded 2004 IRA.) We understand that there are difficulties with access in this area. Placing this area in MA 6.2 would enhance the protection of the full range of topographic diversity in this area and increase protection of the wild core of the Scar Ridge area.

We also urge the Forest Service to give strong consideration to the additional recommendations provided by TNC in the following areas (which we have not attempted to specifically delineate):

- Other areas south of Speckled Mountain (the Cold River area).
- Eastern toe slopes of the Moat Mountains.
- Southern Sandwich Range toe slopes (White Ledge area).
- Central Swift River basin (Church Ponds area).
- The area west and southwest of Mount Moosilauke.

Our proposal includes about 332,000 acres in MA 2.1. Designation of additional areas recommended by TNC as non-timber MAs would result in a timber base approximately midway between Alternatives 2 and 3. We believe that this is an appropriate balance given our strong belief that additional protection for areas of high ecological value is warranted.


AMC Land Allocation proposal
Management Areas
2.1
5.1
6.1
6.2
6.3
7.1
8.1
8.2
8.3
8.4
8.5
8.6
9.1
9.2
9.3
Specific areas recommended by AMC for non-timber MA designation

PROPOSED WILDERNESS

The AMC supports the areas recommended for Wilderness designation as delineated in Alternative 3, in particular the following areas:

- Wild River. The Wild River IRA rated high in almost every category for consideration for Wilderness recommendation (DEIS page 3-343). Wilderness designation would protect most of the central watershed of one of the largest roadless areas in the northeast: a remote valley surrounded by high peaks that contains outstanding scenery and a high level of ecological diversity.
- Dartmouth Range. Though relatively small, the Dartmouth Range contains no maintained trails and is among the most remote places on the WMNF. It provides one of the greatest opportunities for solitude on the forest and is an important scenic backdrop to the Presidential Range and the Bretton Woods area. Wilderness designation for the core of this roadless area would give the Forest Service a unique opportunity to manage the area for true wilderness character without the complications created by high levels of recreational use.
- Pemigewasset extension. At over 100,000 acres, the Pemigewasset region is the largest National Forest roadless area in the eastern United States. Expanding the existing Wilderness on the south and east would provide stronger protection to this nationally signficant area.
- Sandwich Range extension. The Sandwich Range is the third largest roadless area on the WMNF (behind the Pemigewasett and Wild River areas). Currently only a third of this area is designated as Wilderness. Expanding the existing Wilderness would provide greater protection to the wild remote core of this popular backcountry area.

As noted in the DEIS (page 3-331), Wilderness in the northeastern United States is extremely limited, representing a minute fraction of the regional landscape. On the spectrum of land use, Wilderness represents one extreme – the closest thing possible to a natural landscape with a minimum of human intervention. In the northeast, the most heavily developed part of the country, that is a rare and precious feature. The WMNF represents the best opportunity in this region to add significant acreage to the national Wilderness system, and we believe that the revised plan should make a significant recommendation in this area.

The precise boundary of the proposed Wild River Wilderness Area currently is unclear. AMC recommends that the boundary be at least 500 feet from the Appalachian Trail footpath to avoid unnecessarily complicating dispersed camping management, airlift of material for treadway maintenance or reconstruction projects, and general trail maintenance operations, which have the overall intention of protecting resources.

ROADLESS AREAS

Throughout the planning process, roadless area management has consistently been recognized as one of the major issues facing the Forest Service. This was described in Chapter 1 of the DEIS,

where roadless areas were identified as one of five major issue areas of concern indicating a need for change. The importance of roadless areas for the conservation of biodiversity has been recognized in the scientific literature[5]. There is widespread support for the protection of roadless areas by both the general public (as evidenced by the overwhelming support for the original Roadless Area Conservation Rule) and the scientific community[6] (the Rule was endorsed by both the Ecological Society of America[7] and the Society for Conservation Biology). Cline et al. (1999), in a study commissioned by the USFS, stated (page 150), "Because roads contribute to forest fragmentation, and because the region surrounding the WMNF has no limits on road densities, maintaining existing roadless areas on the WMNF, wherever possible, will contribute signficantly to vertebrate biodiversity."

The 1986 plan made no specific provisions for the protection of roadless areas not recommended for Wilderness. As a result, new system roads were constructed in a number of areas. In some cases (Cherry Mountain and Mt. Wolf-Gordon Pond) new road construction was so extensive as to make these areas marginally qualified for retention in the roadless inventory.

Given the strong scientific and public support for the conservation of roadless areas, we are disappointed that the Forest Service's preferred alternative provides very little additional protection for these areas, and essentially takes the same approach as the 1986 plan. (In fact, the word "roadless" does not occur anywhere in the body of the Plan.) The preferred alternative would leave about 125,000 acres of Inventoried Roadless Area (about one-third of the total area, excluding Wilderness) open to new permanent road construction, potentially degrading the remote character of these areas and leading to the disqualification of portions of these areas in future inventory updates.

The enhanced protection given to roadless areas is one of our primary reasons for supporting the land allocation approach of Alternative 3. We do not believe it is necessary to remove all of the larger 2004 IRAs from the timber base, and Alternative 3 provides an appropriate balance. However, even this alternative would leave 75,000 acres of IRA open to new road construction.

The AMC proposes that an additional standard be included that would prohibit any new permanent road construction in Inventoried Roadless Areas (2004 update). We believe that the great majority of the IRA acreage allocated to MA 2.1 is accessible from the existing road network, and that portions that are not accessible without additional road construction in IRAs should be removed from MA 2.1.

We appreciate that the Forest Service included reference to our regional roadless area study (Publicover and Poppenwimer 2002) in the Biological Evaluation (DEIS Appendix G). However, it was used solely to reference the statement "…other large 'roadless' areas exist north

[5] See for example: Loucks, C., N. Brown, A. Loucks, and K. Cesareo. 2003. USDA Forest Service roadless areas: potential biodiversity conservation reserves. Conservation Ecology **7**(2): 5. [online] URL: http://www.consecol.org/vol7/iss2/art5. In the abstract, the authors state, "Based on these findings, we conclude that IRAs belonging to the U.S. Forest Service are one of the most important biotic areas in the nation, and that their status as roadless areas could have lasting and far-reaching effects for biodiversity conservation."

[6] See for example: http://www.ourforests.org/public_support/scientist_letter2_050101.pdf.

[7] See: http://www.esa.org/pao/esaPositions/Letters/RoadlessAreas1999.php and http://www.esa.org/pao/esaPositions/Letters/RoadlessAreaConservationRule.php

of the Forest'" in a section on wildife/vehicle collisions. We do not see its relevance to this issue. In addition, the use of the study to support this statement is misleading and misrepresents one of its major conclusions. While it is true that the study did identify other roadless areas north of the forest, one of our major conclusions was that large roadless areas across northern New England are disproportionately represented on large public ownerships, in particular the WMNF. Four of the six largest areas identified in our study (and six of the largest fourteen) occur on the WMNF. Though the WMNF encompasses only 3% of our study area it encompasses over 20% of the large roadless area. In addition, we have updated this study with more recent satellite imagery. The results indicate that the extent of large roadless areas across our study area declined by over 18% in just a four year period. This loss was primarily through the elimination of areas scattered across large private commercial forest ownerships, as landowners continued the work of establishing modern timber management road networks. This loss increased the WMNF's share of large roadless acreage in the study area to over 25%. It is certain that roadless areas on private land will continue to shrink, which will increase the value of remaining roadless areas on large public lands.

We believe that our study highlights the regional significance of large roadless areas on the WMNF. The DEIS does not adequately address this issue, and the way our study was referenced diminishes rather than emphasizes its importance. We believe that our work supports our position that maintaining the roadless character of IRAs should receive greater emphasis in the Plan.

The Introduction to Chapter 1 of the Executive Summary includes a list of "areas of regional and national significance" occurring within the WMNF (DEIS page 5, 2nd paragraph, 4th sentence). We suggest that the phrase "the greatest concentration of large roadless areas in New England" be added to this list.

Finally, we appreciate the work that was done to update the Roadless Area inventory in response to our earlier comments. The updated inventory provides a much more accurate reflection of the current extent of roadless areas on the forest. However, there are a number of significant areas where land was excluded from IRAs that we believe could justifiably be included. These areas are described in Appendix A at the end of our comments.

ALL-TERRAIN VEHICLES

The AMC strongly supports the Forest Service's provision, included in both Alternatives 2 and 3, that summer use of ATVs not be allowed on the WMNF. We agree with the analysis in the DEIS that summer ATV use may lead to increased soil erosion, impacts on streams and wetlands, increased illegal ATV traffic both on the forest and on adjacent lands, increased transport of non-native invasive plant species, and potential conflicts with current uses of the forest. In addition, we agree with the Forest Service's assessment that allowing this use would involve substantial costs to the Forest Service. In order for this activity to be adequately monitored, resources would have to be reallocated from other Forest Service activities. At a time when the WMNF is already challenged to carry out its programmatic responsibilities because of shrinking staff and budget, we do not feel this would be an appropriate use of the forest's limited resources.

TIMBER AND WILDLIFE HABITAT MANAGEMENT

The AMC supports the approach to timber and wildlife habitat management proposed in Alternative 2. We agree with the Forest Service's assessment that this approach provides worthwhile benefits, including the ability to provide a range of wildlife habitats and the enhanced marketability of timber sales.

Our support for this alternative is based on a high level of knowledge of the USFS's silvicultural approach on the WMNF. However, others may not have this level of knowledge. The Plan is almost completely lacking in details as to how vegetation management will be conducted, other than a general statement that it will be a mix of even-aged and uneven-aged management, and specific goals for the creation of even-aged regeneration habitat. For example, the terms "shelterwood", "seed tree" and "single-tree selection" do not appear anywhere in the body of the Plan (though they do appear in the Glossary and the Summary Analysis of the Management Situation).

The Plan needs to present a much greater level of detail on the silvicultural approach that will be utilized (either specifically or by reference to the DEIS or published silvicultural guides). In particular, the Plan needs to provide information relevant to the following questions:

- What silvicultural systems will be used in different forest types?
- What will be the overall balance between even-aged and uneven-aged management?
- What stand conditions will lead to the use of even-aged versus uneven-aged management, well as the specific options within each (e.g., shelterwood versus clearcut, or individual tree versus group selection)?
- Under what conditions will stands be determined to be suitable for an even-aged regeneration harvest?
- What is the planned rotation age for stands under even-aged management?
- What are the target residual stand goals when uneven-aged management is used?

These details would most appropriately be included in the Vegetation Management Standards and Guidelines for MA 2.1 (Plan page 3-6).

RECREATIONAL MANAGEMENT

AMC strongly supports the overall recreation goal common to Alternatives 2 and 3 of emphasizing concentrated use with appropriate management of impacts to high use areas and the protection of low use areas through appropriate management action. Because of our high interest in this aspect of WMNF management and our on-going partnership with the Forest Service in this area, our comments are extensive.

Non-Motorized Recreation: Shelters/Cabins/Tent Platforms

Objective 2 (Plan page 1-11) reads, "Increase capacity of shelters, cabins, or tent platforms by up to 40 people." With over 40 of these facilities on the WMNF, an increase of 40 people would

only allow increasing capacity by less than one person per site, which does not reflect the realities of current use and impacts at several highly popular overnight sites on the forest. This objective should be re-written to differentiate between better managing existing use levels at a given location and actually adding new capacity to the system. Guideline 6 under Shelters/Cabins/Tent Platforms (Plan page 2-23) provides better direction by emphasizing the minimal expansion that would be needed to manage existing recreational use of a given site.

There are several sites on this forest with long-standing over-use problems that have not been adequately addressed, namely Eliza Brook Shelter, Kinsman Pond Campsite, Guyot Campsite and Nauman Tentsite. All of these locations regularly see overnight use higher than their current capacity. Considerable resource degradation and a decline in the quality of the recreational experience have long justified the need to expand these locations to meet the current level of use based on over 10 years of overnight use data collected by AMC. Large group use has played a significant role in this overuse. Unless other measures are taken to limit use, it is likely these locations will continue to experience over-use problems.

AMC's specific suggestions for these sites are:

> Eliza Brook: The site currently has two inadequate tent pads and substantial unmanaged tenting is occurring throughout the surrounding area. The construction of 1 double platform and 3 single platforms would offset some of the current impacts.
>
> Kinsman Pond: Expand two of the single platforms to doubles and construct one new double platform
>
> Guyot Campsite: Add one additional double platform for large groups
>
> Nauman Tentsite: Add one additional double platform for large groups

None of these improvements would actually add additional capacity that would encourage an increase in future use, but would harden the areas to handle the *current* use.

Standard S-2 (Plan page 2-22) states, "Native materials should be emphasized for maintenance and repair activities." However, there is an inconsistency with how the term "native" is used in repair of shelters, cabins and tent platforms with how the term "native" is used in the Wilderness Management Area Direction (Plan page 3-11 to 3-13). Use of the term "native" is widely known in the trail/backcountry recreation world to imply "on-site materials" (i.e., use of trees cut in the immediate area). In this sense, it is impractical to use "native" materials in repair or construction of many shelters and all tent platforms and we do not support emphasizing "native" materials for maintenance and repair.

As the term "native" is used in a Standard, we suggest changing the wording of S-2 to read:

> "Shelters, cabins and tent platforms that are retained must be maintained. Native and/or dimensional wood materials should be emphasized for maintenance and repair activities.

Non-native or non-wooden materials may be used if use of native wooden materials is impractical…"

"Native" materials are practical and should be emphasized for use in designated Wilderness in the construction of bog bridging and other uses.

Non-Motorized Dispersed Recreation: Appalachian Mountain Club Huts

Standard S-3 (Plan page 2-22) currently reads, "Except for health and safety concerns, expanding existing huts in either capacity or physical structure is prohibited." We recommend that this be changed to read: "Except for health, safety, and resource impact concerns, expanding existing huts in either capacity or physical structure is prohibited." We believe that an erratum to this effect was circulated shortly after the plan was released.

Non-Motorized Recreation: Non-motorized Trails

The AMC generally supports the objective of constructing up to 25 miles of new non-motorized trail. However, we do not believe it is necessary to construct additional trails that because of their topography and grade would be limited to one use (primarily hiking). We believe that the existing trail system provides sufficient opportunities for hiking and backpacking (although we do support construction of significant hiking trail relocations that may be necessary in the next several years).

We believe that the current non-motorized trail system in the WMNF lacks opportunities for other types of non-motorized recreation. Specifically, there is a need for additional accessible and/or easy forest walks on the forest, as the current 1200-mile forest-wide trail system contains relatively few of this type of trail. We support the construction of additional non-motorized trails suitable for multiple uses in addition to hiking, such as mountain biking and cross-country skiing, which have relatively fewer trail opportunities in the forest. In addition, trails leading to some of the popular climbing areas should be identified and maintained to protect resources and prevent the unnecessary sprawl of bootleg trails.

We also see a possible conflict in wording between the overall Goals and Objectives (Plan page 1-11) which states:

"1. Construct up to 25 miles of new, non-motorized trails."

and the Non-Motorized Dispersed Recreation Standards and Guidelines – Trails (Plan page 2-21), which states:

"G-3. No additional trails should be constructed or authorized unless clearly needed…"

Therefore, we recommend clarifying the language as follows:

Non-Motorized Dispersed Recreation Objective 1:
"Construct or authorize up to 25 miles of new, non-motorized trails where clearly needed to provide public access to the existing system, address resource impacts, meet health and safety standards, conform to management area direction, or to meet the Forest recreation management approaches."

Non-Motorized Dispersed Recreation - Trails G-3:
"No more than 25 miles of new trails should be constructed or authorized. The construction or authorization of any new trail or portion of a trail should only be in response to a clear need to provide public access to the existing system, address resource impacts, meet health and safety standards, conform to management area direction, or to meet the Forest recreation management approaches."

Non-Motorized Recreation: Mountain Biking

AMC supports Standard S-1 (Plan page 2-23), which leaves trails open unless closed to mountain bike use, except in designated Wilderness and Appalachian Trail management areas. Since travel corridors include skid roads that are often not created with trails in mind and benefit from regeneration, AMC also supports Standard S-3, which prohibits the use of mountain bikes on travel corridors unless designated open. However, AMC urges the Forest Service to work with the mountain biking community to identify travel corridors that are appropriate for mountain bike use and open those routes in a timely fashion.

Because confusion could easily result among general users about where they are and are not allowed to ride, AMC also suggests the following Guideline be added to this section:

G-1: All trailheads will be posted with information explaining that mountain bikes may use any of the system trails and roads, but not other routes, or "travel corridors," unless specifically posted open. The information should clearly define system trails and travel corridors for users.

Developed Recreation: Trailheads

In regards to G-2 on Plan page 2-20, the AMC generally supports the goal of not constructing, improving, or expanding trailheads solely to accommodate increased recreation use. However, where current or increased use is combined with pedestrian or vehicular safety concerns, trailhead parking should be expanded or improved, and AMC recommends that the Forest Service should cooperate with other public landowners managing high-use or relatively unsafe trailheads that provide access to the Forest. Example locations include the 19-Mile Brook, Mt. Clinton Road/Crawford Path, and Appalachia trailheads.

MA 8.3 - Appalachian National Scenic Trail: Recreation

The AMC supports the designation of a specific Management Area for the Appalachian Trail Corridor and feels that real management benefits will result.

The Introduction (Plan page 3-35) states that within the Proclamation Boundary, the AT Management Area is the "land designated as 0.5 miles either side of the trail." The Introduction also states that MA 5.1 (Wilderness), MA 8.1 (Alpine Zone) and MA 7.1 (Wildcat Ski Area) will not overlap with the AT Management Area. Yet General Standards S-3 and S-4 state that management direction for both the AT and Wilderness or Alpine Zone must apply where the AT crosses those areas, with the more restrictive standards being applied where direction differs. This is inconsistent with the Introduction's direction that the management areas should not overlap.

AMC therefore recommends modifying the introductory language as follows:

> "Within the Proclamation Boundary, the Appalachian National Scenic Trail management area is the land designated as 0.5 miles either side of the trail except where more restrictive Wilderness Area and Alpine Zone Area Standards and Guidelines are applied."

Since the intention of the AT Management Area is not to override the Pinkham Notch Scenic Area Standards and Guidelines, AMC also recommends modifying the last sentence of the Introduction as follows (as also supported in the Appalachian Trail Conference's comments):

> "The AT management area and Wilderness (MA 5.1), the Alpine Zone (MA 8.1), Wildcat Scenic Area (MA 7.1), and the Pinkham Notch Scenic Area (MA 8.5) will not overlap."

Guidelines G-2 & G-3 (Plan Page 3-39) represent sound management practice for the Appalachian Trail. However, there should be a discussion (perhaps in the Summary Analysis of the Management Situation) of the AT Opportunity Zone Spectrum Project that was conducted in 2003 by the WMNF, ATC, and AMC regarding future backcountry overnight management along the Trail. Four Opportunity Zones were defined by section reflecting resource, social, and managerial conditions for the Trail through the WMNF. The project had the goals of encouraging concentrated use where resource impact is of concern, and managing low-use areas to remain low-use and provide the associated recreational opportunities. This is similar to the Wilderness Zoning concept developed by the WMNF for the five Wilderness areas in the Forest. AMC recommends that this project be completed and applied to the AT Management Area since it will provide a useful tool for resolving management direction in locations where there is currently inadequate overnight capacity. For example, the 17.9-mile gap in overnight sites between the Osgood tent site and Imp Shelter is a persistent problem that would be resolved through the overall guidance provided by the AT Opportunity Zone Spectrum.

MA 8.5 - Scenic Areas (Pinkham Notch): Special Uses - Recreation Specific (Plan page 3-49)

The AMC supports appropriate limitations on all events in the Cutler River drainage in keeping with the ROS of the area and to ensure that the area's sensitive resources are protected from undue impact, general public access is maintained, and parking and safety issues are adequately addressed. Future event proposals should be carefully reviewed with regard to these concerns.

Summary Analysis of the Management Situation: Rock Climbing

Item #4 (Plan page A-69) states "trails should not be constructed or maintained unless necessary to protect resources." This direction is too limiting. The lack of identifiable trails to some of the more popular sites could be a disservice to the rapidly growing climbing community and may contribute to increased resource degradation. Being able to locate the start or descent of some popular climbs should be a part of the entire range of climbing opportunities on the WMNF.

It is well known that many of the "trailless" climbing areas on the WMNF have numerous bootleg trails leading to them, some marked by cairns or blazes and some unmarked. Usually, these bootleg trails are placed in poor locations, causing erosion where identifiable but also creating a "spider-web" of trails caused by climbers looking for the crag where the route is not well marked. There are web sites such as http://www.neclimbs.com/ that list how to get to crags. As can be seen by reading the site descriptions, trail erosion and bootleg access trails will increase in the future if not addressed.

For these reasons, we believe climbing access trails should be an area of focus for new trail construction as discussed earlier, and any new access trails should be constructed not only to specifically protect resources, but also to otherwise manage dispersed or undesignated access.

Accessibility

The AMC recognizes that outdoor hiking experiences in natural settings open to the public should also be accessible to people with a range of physical disabilities. We support actions that increase the outdoor opportunities available to people with disabilities, and applaud the Forest Service's commitment to meeting the relevant laws (ABA and ADA) in the design of its facilities and programs.

AMC also encourages cooperation among agencies with jurisdiction to set rules, standards, and guidelines for accessible trails, including the U.S. Forest Service and the Architectural Transportation Barriers Compliance Board (Access Board), rather than going through separate processes for public review and comment that could lead to conflict or confusion among standards.

AMC does not support the inclusion of the FSORAG and FSTAG policy documents as the standard for accessibility in the White Mountain National Forest as proposed under Accessibility Standard S-1 (Plan page 2-6) since neither has gone through review by the Office of Management and Budget, publication in the Federal Register, or public comment. If the above policies are adopted after they have gone through OMB's review of financial impacts and through public comment and review, then they will direct WMNF policy even without reference in the Forest Plan. We therefore urge you to drop the reference to FSORAG and FSTAG from the forest-wide standards and guidelines.

WILDERNESS MANAGEMENT

Recreation

Standard S-3 (Plan page 3-10) reads "…management actions must not change a zone from A to B, B to C, or C to D". In light of this, it is critical to apply the appropriate zone in the final Plan to reflect current use levels, campsites, vegetation/soils, managerial presence, and social conditions. See our suggestions below under Wilderness Zoning.

Special Uses - Recreation Specific

Standard S–1b (Plan page 3-12) does not adequately differentiate between day and overnight use in Zone B. If the LNT certification requirement for trip leaders applies to both day and overnight use, a significant number of outfitter guides will be dispersed off of the upper portion of Franconia Brook Trail, Twin Brook Trail, and Bondcliff Trail if they are classed as Zone B. Many of the visitors to these trails are not currently certified in LNT. This is an additional reason to rate these trails as Zone C (see our suggestions below under Wilderness Zoning).

Standard S–1c (Plan page 3-12): a definition to differentiate between "designated" and "established " campsites needs to be added to the Glossary in the DEIS. We suggest:

> *"Designated:* a managed, hardened site, often with obvious constructed features (i.e., signing, constructed tent pads or platforms, toilets, etc.)
>
> *Established*: an unofficial visitor-created site that is well impacted."

Trail Management and Operation

Standard S-2 (Plan page 3-13) beginning "Cairns, limited scree walls, blazing and directional arrow signs…": We agree with the intent of this Standard, but we recommend changing the wording to clarify the intent to ensure uniformity throughout the WMNF. Many trail organizations and the Forest Service have the responsibility to implement this direction. To avoid confusion about when blazing and use of directional arrows are allowed in Wilderness, we recommend the following change:

> "Cairns and limited scree walls must be used only when the summer trail tread is not easily discernable, for resource protection, or to mitigate an unusual or extraordinary public safety hazard. Use of blazing or directional arrows is prohibited but may be allowed in circumstances where use of cairns and limited scree walls is not effective or possible."

Guideline G-1 (Plan page 3-13) states "Trails may be added or eliminated to protect Wilderness character." This goal is too simply stated to provide useful guidance. New trails in Wilderness are inconsistent with the overall Wilderness Management Area direction, yet there may clearly

be a need to change, add, or eliminate trails to protect Wilderness character where high use of an existing trail or relatively high use of a trailless area is causing unacceptable resource impacts.

Therefore, AMC recommends adding clarifying language to this goal to state:

> "G-1. Trails may be added or eliminated to protect Wilderness Character, such as when an informal trail or route is leading to unacceptable erosion or if overnight dispersed use needs to be concentrated to reduce resource impacts."

APPENDIX E – WILDERNESS MANAGEMENT PLAN

Zone designations

Based on the criteria outlined on pages E-3 through E-9 of the Plan, AMC *strongly recommends* that several trails in the Pemigewasset Wilderness area be re-zoned. The following Trails should be re-classified from **Zone B** to **Zone C**:

1) **Franconia Brook Trail:** The upper portion from 13 Fall Tentsite to the Wilderness boundary near the Garfield Ridge Trail.
2) **Twin Brook Trail:** from the junction with the Franconia Brook Trail near 13 Falls Tentsite to the Wilderness Boundary near Galehead Hut
3) **Bondcliff Trail**: From the junction with the Wilderness Trail to the Wilderness Boundary, which is north of the junction with the West Bond Spur and south of the junction with the spur trail to Guyot Campsite.
4) **West Bond Spur:** From the junction with the Bondcliff Trail to the summit of Mount bond

These suggestions are being put forth since Zone B is described as being the "lowest-use, least developed trails within WMNF Wilderness…. offering the greatest opportunity for solitude…. encounters with other visitors or with management are infrequent." By comparison, Zone C reads: " in general more highly used and more highly developed than zone B…moderate use, moderately developed trails…encounters with other visitors or with management are likely."

In the case of both the Franconia Brook and Twin Brook Trails, the use level and patterns, social conditions, vegetation/soils and managerial presence on both of these trail sections are greatly influenced by the foot traffic between the Appalachian/Garfield Ridge Trail and 13 Falls Tentsite. For the past ten peak seasons (1995-2004) 13 Falls has seen an average of 1131 overnight visitors for the period from the first weekend in June through the second weekend of September. Many of these visitors access 13 Falls by coming down from the AT/Garfield Ridge Trail or continue their itineraries from 13 Falls after arriving on site by the lower section of the Franconia Brook Trail. It is also common practice for visitors at 13 Falls to stay several nights at 13 Falls - using the site as a "base camp" - and day hike the Franconia Brook-AT/Garfield Ridge-Twin Brook Trails loop. For the above-mentioned period, approximately 30-34% of the overnight visitors to 13 Falls are in large organized groups, which frequently have the maximum 10 participants allowed in Wilderness. In addition, 13 Falls is staffed with a seasonal AMC

caretaker who is frequently working on both the Franconia Brook and Twin Brook Trails, and both trails have bog bridges and rock steps.

As for the Bond Cliff Trail and West Bond Spur being re-classified to Zone C, a similar justification exists. For the past ten seasons (1995-2004) Guyot Campsite, immediately adjacent to the Pemigewasset Wilderness boundary, has seen an average of 2036 overnight visitors for the period from the first weekend in June through the end of September. Many of these visitors access Guyot Campsite by hiking along the Wilderness Trail to Bondcliff Trail, hiking north across the Bonds to Guyot. Equally popular is to arrive at Guyot from the north end of the Bondcliff Trail by way of the Twinway, stay the night then continue their itineraries south on the Bondcliff and out the Wilderness Trail to Lincoln Woods. It is also common to arrive at Guyot by the Twinway/Bondcliff access, stay the night, then day hike to West Bond, Mt. Bond, and /or Bondcliff. For the above-mentioned period, approximately 30-35% of the overnight visitors to Guyot are in large organized groups, which frequently have the maximum 10 participants allowed in Wilderness. In addition, Guyot is staffed with a seasonal AMC caretaker who is frequently working on the Bondcliff Trail, and the trail has rock steps, scree walls, and cairns.

It is worth mentioning that the Bondcliff trail could be split into two zones for protection of the Alpine Zone between Bondcliff and Mt. Bond. The Trail could be zoned C from the junction of the Wilderness Trail north to treeline at Bondcliff, zoned B from Bondcliff to the summit of Mount Bond, then return to Zone C from Mt Bond north to the Wilderness boundary. This would reflect the visitor use pattern from both the north and south to the two main destinations. However, this may prove to be impractical, since much of the use is hiking the whole trail from the Wilderness Trail to Twinway or vice-versa.

The reclassifying of these trails will more accurately reflect current use levels and is based on the rationale that the preferred future management would retain the character of these trails at Zone C. If they are classified as Zone B, it will be necessary to implement significant management activities right from the start to bring these trails in line with the Zone B criteria listed in the plan on p. E-6. This would take significant action and resources that could be used elsewhere for better Wilderness Management. It will be much more difficult to "down grade" a trail to Zone B when it is currently more accurately a Zone C than to classify the trail at Zone C from the start and manage it so that it does not creep to Zone D.

The four trails outlined here are significantly influenced by the use levels along the Appalachian Trail, which is immediately adjacent to the Pemigewasset Wilderness at its western and northern boundary. The zoning concept is an excellent approach to the future management of this popular Wilderness area, but it must be recognized that the trails in the Pemigewasset do not exist independently of the surrounding area.

Wilderness Staffing (Plan page E-19)

The recommended level of Wilderness staffing is adequate for the five current Wilderness areas in the WMNF. However, will it be possible to maintain this level for the life of the Plan in light of flat or decreasing budgets, particularly if Wilderness areas are expanded or added?

Education Messages (Plan page E-24)

Under *5.3.2, Education Messages for All Zones*, the first line reads, "Below is a summary of established education messages, generalized for all Wilderness zones:" We recommend changing this wording to read: "Below is a summary of established education messages, following the Principles of Leave No Trace, generalized for all Wilderness zones".

Other comments

The Great Gulf Wilderness Zoning Map (Plan Page E-33) needs a higher attention to detail since some of the zones marked on the map extend outside the Wilderness Area.

AIR QUALITY

It is clear in the proposed Plan and draft EIS that WMNF staff understands they have an important role in protecting and monitoring air quality and related affected resources within the forest. However, AMC believes that the forest has not fully delineated and defined their role as a Federal Land Manager (FLM) in federal and state air resource policies. AMC recommends that the WMNF clarify, within the appropriate sections of the Plan, their role in each of the following[8]:

1. Under the Clean Air Act (these should be described separately)
    a. NAAQS and SIPs, already mentioned by WMNF.
    b. Prevention of Significant Deterioration; role in permit process and establishment and monitoring of AQRVs.
    c. Visibility protection under section 169A and B, beyond PSD and AQRVs.
    d. General Conformity

2. Protection of AQRVs through implementation of the Wilderness Act itself beyond the CAA

Additionally, under the standards and guidelines it should be stated that AQRVs will be fully identified. AMC recognizes that a list of AQRVs and associated sensitive receptors and thresholds exists for the two Class I areas in the WMNF; however, now is the time to revisit that list and update it. We do not consider the current list as anywhere near complete.

AMC would like to see a specific list of AQRVs and related impacts within the Forest Plan and, for those AQRVs that are new from the previous list, a strategy for how to define sensitive receptors and thresholds. Specifying the AQRVs and impacts will aid in defining what monitoring then needs to be conducted to track air quality impacts on receptors and to provide baseline data necessary for any future permit analyses and other policy actions. These monitoring methods and action plans should also be included in the current Forest Plan. AMC

[8] See: Legal Framework for Managing Air Quality Effects on Federal Lands http://www2.nature.nps.gov/air/Permits/ARIS/legal.htm.

proposes the following guidelines and standards be adopted by the WMNF, taken from Forest Service guidance document[9]:

1. Forest management and permitted activities will comply with National and State ambient air quality standards, regional haze visibility requirements, Class I and Class II Prevention of Significant Deterioration increments, conformity analysis requirements, and other state and national air quality standards and coordination requirements.
2. Activities that pose potential to substantially change air quality conditions (such as broadcast burning, oil and gas leasing, and ski area development) should include an air quality issue in NEPA analysis and include effects disclosure and comparison to air quality standards using accepted analysis methods.
3. AQRVs will be identified in Class I areas and AQRV inventory and monitoring plans integrated into Wilderness Implementation plans. Monitoring of AQRVs will be conducted to determine condition, trend, and sensitivity for AQRVs particularly subject to air pollution.
4. AQRVs will be protected through coordination with the State regulatory agencies in the Prevention of Significant Deterioration permitting process, and other permitting activities. This requirement applies primarily to upwind industrial developments with the potential to adversely impact Class 1 AQRVs.
5. To prevent significant adverse effects of air pollutants and atmospheric deposition on forest and rangeland resources by cooperating with air regulatory authorities.

FLAG guidance, while only in Phase I, has been established on developing AQRVs related to ozone, S and N deposition, and visibility and how to use that information in the PSD permitting process. Most recently a FLM critical loads for sulfur and nitrogen workshop[10] provided some science and policy considerations that may be useful in developing AQRVs monitoring methodologies and appropriate thresholds related to these pollutants. In particular AMC agrees with the approach of developing critical loads and thresholds based on scientific data and separate target loads that are policy-based. AMC advocates that critical loads should reflect specific spatial areas. For example, higher elevation areas have and continue to receive higher deposition of pollution than lower elevations, and also have different soil buffering capacities. Therefore critical loads should vary with elevation and soil type.

There seems to be enough guidance and science-based material available for the forest to take the planning opportunity and redefine and expand the AQRVs specific to WMNF and initiate action to then monitor and protect those values.

AMC suggests the following list of AQRVs and general impacts:

AQRV	**General Impact**
Aquatic Resources	Chronic and episodic acidification, ANC, metal concentrations,

[9] See: http://www.fs.fed.us/r1/gallatin/resources/air/guidance/FPrevision.shtml
[10] Federal Land Managers Critical Loads for Sulfur and Nitrogen Workshop. March 30 - April 1, 2004. Final: Sept. 2004.

	excess-N
Fauna/Wildlife	Mercury level in fish and other wildlife, birds (?)
Soils	CEC; excess-N, metal concentrations
Flora	Ozone injury present, lichen chemistry
Visibility	Contrast, Visual Range, Coloration

ALPINE AREAS

The AMC supports the designation of a specific management area for the alpine zones. We have two specific comments regarding the designation:

- Nowhere is it specified how the mapped Alpine Zone Management Area is defined and determined. We suggest using a definition of high elevation areas where trees are generally less than 2.5 meters tall. This definition matches WMNF recreation definition and is also the definition that AMC used for our alpine plant communities maps for the Presidential and Franconia Ranges.
- There are other smaller alpine areas outside of the designated Presidential and Franconia Ranges that should be considered for inclusion in this MA. These smaller alpine areas may be most susceptible to degradation and may not be adequately protected under their current MA designation.

General comment

The AMC recognizes the high sensitivity of the alpine zone on the WMNF. Over the years we have worked closely with the USFS to manage public use of the area in a way that provides a balance between protection of alpine ecosystems and the public's ability to enjoy and learn from this unique area.

There are a number of areas in the plan that indicate the need to monitor various aspects of the alpine ecosystem and potentially take mitigation action if unacceptable degradation is occurring. These include:

- Objective 1 for Bicknell's thrush (Plan page 1-7).
- General Standard S-1 for the Alpine Zone (Plan page 3-28).
- Discussion of recreational use of the Alpine Garden (Plan pages A-23 and A-26).

We agree that these are critical issues, and support the need to take action if unacceptable levels of resource damage are occurring. The plan is not specific enough to allow us to assess how monitoring is to be accomplished, what constitutes an unacceptable level of resource damage, and what options for mitigation might be considered. As a long-standing partner with the USFS,

we anticipate working closely with the FS to address any issues that may arise regarding the integrity of the alpine ecosystem.

Goals and Objectives: Rare and Unique Features (Plan page 1-7)

We recommend adding a species-specific section for Robbins' cinquefoil, similar to other Federal ESA species. Although this species has been delisted, it is still in the 5-year post-delisting period in which populations must be monitored. We recommend the following goal:

> "Maintain the successful recovery of dwarf cinquefoil through continued protection of critical habitat and monitoring of population levels."

Goals and Objectives: Non-Native and Invasive Species (Plan page 1-6)

We have reviewed the lists of NNIS, and although none of the non-native species currently around AMC's huts are listed under the Federal Noxious Weed, R9 Regional, or NH/ME state lists, this could be an issue in the future, especially since eradication of NNIS is given a high priority in the Alpine Zone (Plan page 3-29). However, the plan does not address the process for designating NNIS into different threat classification categories. We anticipate working closely with the FS to address any issues that may arise regarding NNIS in the AMC special use permit area.

Forest-Wide Management Direction: Rare and Unique Features (Plan page 2-15)

Pursuant to the previous comment, we recommend adding a species-specific section for Robbins' cinquefoil. We recommend adding the following standards:

- "Maintain the exclusion zone surrounding critical habitat on Monroe Flats."
- "Conduct population census in 2006 to confirm successful recovery and finalize delisting."

Standard S-2 states, "Until conservation approaches or specific site prescriptions are developed, land uses that would negatively alter habitat conditions necessary to support the species must not be allowed within 100 feet of the [TES] plant(s)…". TES plant species occur in close proximity to many alpine trails, most notably in the Alpine Garden. If taken literally, this could mean that no hiking could take place along these trails. We suggest making it clear that this standard only applies to new land uses.

Management Area Direction: Desired Condition of the Land (Plan page 3-27)

We recommend adding the phrase "staying on established trails" to the sentence beginning "An alpine ethic should be emphasized…".

We recommend adding the phrase "with some areas managed for primitive recreation experience opportunities" to the last sentence beginning "The Recreation Opportunity Spectrum…". This will make it consistent with Recreation Standard S-1 on page 3-29.

Management Area Direction: Standards and Guidelines

We recommend adding a new standard S-1 under Rare and Unique Features (Plan page 3-29):

> "Make completion of Conservation Assessments of 15 RFSS alpine species a priority to aid protection of this Management Area."

While there is a general goal of completing Conservation Assessments for all listed species within 5 years, none of the 15 alpine species have been completed (although an Alpine Community Conservation Assessment was completed). Given the uniqueness of this area and the relatively high potential for degradation this issue deserves a high level of attention.

Standard S-5 under Recreation – Administration (Plan page 3-29) states "Camping is prohibited unless on two feet or more of snow cover." We recommend a slight change in the language to aid in protection. In the late spring season when most snow is gone, the current wording may encourage campers to seek out remaining small patches of snow in the alpine zone, which are near rare and sensitive snowbank communities and would require hiking over off-trail vegetation to reach limited areas of deep snow. We would suggest changing the wording to something like "Camping is prohibited except where two feet or more of snow covers the general area." Similar language should be used for Guideline G-3 under Recreation - Special Uses - Recreation Specific (Plan page 3-30).

We recommend adding a new Standard S-2 under Trail Maintenance and Operation (Plan page 3-30): "Existing unofficial bootleg trails will be blocked using debris piles and brushing-in to deter their continued use."

WINDPOWER DEVELOPMENT

The AMC recognizes the need for alternative energy sources to reduce the negative impacts associated with high levels of fossil fuel use. We are not opposed to the consideration of certain areas on the WMNF for the installation of this technology. However, we believe extreme caution must be exercised before allowing significant development on public lands dedicated for conservation, especially an area with such a high level of regional significance.

Consideration of potential sites must go beyond the site-specific issue of what MAs are suitable. The current industry standard for terrestrial wind turbines are 1.5 MW machines extending nearly 400' to the upper tip of the rotor circle. These are obviously visible from a long distance, and due to their height must be lighted under FAA regulations (which increases their visual impact). Windpower installations thus have scenic impacts well beyond the immediate vicinity.

We have analyzed wind resource maps developed by TrueWind Solutions and digitized all ridgelines associated with windpower class 4 and above (considered the limit for economically feasible development given current technology). While there are large parts of the WMNF with sufficient wind resource, the great majority is within MAs where this use would not be allowed. Suitable areas where this use would be allowed consist primarily of the lower elevations of ridgelines extending down from higher elevations. Many of these areas are relatively short, capable of containing perhaps 1-3 towers. We do not believe that allowing small installations of

a few towers scattered across the forest is appropriate, as it would create a scenic impact through visual "clutter" disproportionate to the amount of energy generated.

Other potential sites are a few lower summits, primarily around the outer fringes of the forest (some of which extend on to adjacent private land). However, even these sites may involve significant impacts if they are located within IRAs or ecologically sensitive areas, or are highly visible from important recreational use areas such as the Appalachian Trail.

If windpower development is to be seriously considered on the WMNF, we urge the FS not to take a reactive, case-by-case approach that evaluates projects at sites chosen by developers. Rather we urge the FS to undertake a pro-active planning process in cooperation with a wide range of stakeholders to determine what sites (if any) would be suitable for windpower development. Any proposed development on the WMNF is likely to be very controversial, and such a pro-active approach would allow determination of site suitability to be made in advance, rather than in the heat of a specific application process.

OLD GROWTH AND OLD FOREST HABITAT

We believe that the definition of old growth provided in the glossary is too restrictive and does not accurately reflect current thinking on this subject. No citations or justifications for this definition are provided. We recognize that the definition of old growth is difficult and that no firm consensus exists on this issue. Excellent discussions on the definition of old growth are provided by Tyrrell et al. (1998)[11] and Leverett (1996)[12]. We believe that the definition should more carefully define the structural characteristics of old growth. We also believe that the minimum size requirements are too high and would eliminate from consideration smaller residual patches of old growth that are more likely to be found on the WMNF than larger stands. For example, Leverett (1996) suggests a minimum stand size of 5 to 10 acres. These smaller stands, while not capable of encompassing the full dynamics of larger stands, are worthy of protection and provide important habitat, especially for smaller organisms such as epiphytes, amphibians and insects[13]. We note that many of the old growth northern hardwood and spruce-fir stands listed in Tyrrell et al. (1998) are smaller than the minimum size used here. The Summary Analysis of the Management Situation specifically notes (Plan page A-27, item #11), "Small areas of old growth are an exemplary community that should be defined for the Forest and needs specific standards and guidelines for management."

We suggest the definition of old growth be changed to the following:

> "There is no universally accepted definition of old growth. However, old growth stands generally share many (though not necessarily all) of the following characteristics: 1) multiple age classes, 3) multi-layered canopy with a high level of horizontal and vertical

[11] Tyrrell, Luce E. et al. 1998. Information about old growth for selected forest type groups in the eastern United States. USDA Forest Service North Central Forest Experiment Station General Technical Report NC-197.
[12] Leverett, Robert. 1996. Chapter 1: Definitions and History. Pp. 3-17 in: Eastern Old Growth Forests: Prospects for Rediscovery and Recovery, M.B. Davis (ed.). Island Press.
[13] See for example: http://www.manometmaine.com/documents/FMSN_LSPopularVer9_10pt.pdf, which discusses work done by the Manomet Center for Conservation Sciences on the biological importance of late-successional forest.

> diversity, 3) dominance by late-successional (shade-tolerant) tree species, 4) abundance of old trees (generally 150+ years for hardwoods and 200+ years for softwoods), 5) presence of large diameter snags and down woody debris, 6) extensive growth of lichens, mosses and fungi, 7) thick undisturbed forest floor exhibiting pit-and-mound topography, 8) little or no evidence of past human disturbance, and 9) a minimum stand size of at least 10 acres."

In addition, the DEIS states (page 3-26), "The Forest has a very limited amount of old growth, and what stands exist are in management areas that do not have planned timber harvest activities." While this may be true for *known* stands, it is demonstrably untrue for other residual stands that have not yet been documented, as evidenced by the discovery of previously unknown old growth in the Shingle Pond area during planning for the Kearsarge timber sale. We suggest this be changed to the following:

> "Because of extensive past harvesting, the Forest has a very limited amount of old growth. Currently documented stands are in management areas that do not have planned timber harvest activities. However, residual patches of undocumented old growth may remain throughout the forest, as evidenced by the recent discovery of potential old growth in the Shingle Pond area."

We also believe that the definition of old forest habitat could be improved. The definition should include the more widely used term "late-successional forest" and should give a better understanding of the characteristics of this age class. We suggest:

> "Also known as 'late-successional forest' this habitat is intermediate in age and character between mature and old-growth forest. The forests have a greater age, size and structural complexity than mature forest and may possess some of the characteristics identified for old growth forest, but are not well enough developed to qualify as old growth. They may also exhibit greater evidence of past human disturbance than old growth. Old forest may exist as entire stands or as smaller patches within younger stands."

The value of late-successional forest (even in small patches) to the conservation of biological diversity has been well described by researchers from the Manomet Center for Conservation Science (see reference in footnote 12).

The existing definition states that old forest stands will be reserved from harvesting. It is inappropriate to include a management standard in a definition. However, this provision is not reflected in the actual Standards and Guidelines. We suggest revising Wildlife Standard S-7 (Plan page 2-36) to read:

> "Timber harvest will not occur in old growth forest or old forest habitat, as defined in the glossary."

OTHER COMMENTS

Management area designations

The AMC supports the proposed Wild and Scenic River and Candidate Natural Area management areas and the expansion of the Bartlett Experimental Forest that are common to Alternatives 2, 3 and 4

Riparian Standards and Guidelines

The Riparian Standards and Guideleines are generally very good. However, Riparian guideline G-2 (Plan page 2-26) states, "Regeneration group cuts should be limited to less than one acre in size." This is too large, and is in conflict with the overall goal of maintaining a relatively continuous forest canopy. A one-acre opening in a 100'-wide riparian zone would result in an opening extending more than 400' along the stream length. In addition to its failure to maintain forest canopy, such a cut would be in violation of New Hampshire's basal area law (RSA 227-J:9). The maximum opening size should be reduced to one-quarter of an acre.

Wildlife Standards and Guidelines

Standards S-1 and S-4 (Plan page 2-35) are duplicative. Eliminate S-1 and change S-4 to S-1.

The Standards and Guidelines (in fact the entire Plan) contain no references to mast. While the need to retain oak is well-addressed, beech is also an important mast species. Guidelines for the identification and retention of mast-producting beech trees should be added.

Wildcat Wild and Scenic River

Standard S-1 (Plan page 3-56) states that vegetation management will be allowed for "Correction of severe damage caused by [natural catastrophe]." We are unsure what is meant by "correcting" a natural event. We suggest you use the more appropriate term "restoration", and give greater guidance as to what values are being restored and what types of manipulation will be allowed (for example, does this standard allow commerical salvage of damaged timber?).

Commercial minerals

The table of allowed activities by management area (Plan page 2-3) indicates that commercial mineral extraction is allowed in all MAs except 5.1, 8.6 and 9.1. This is inconsistent with the descriptions of the individual management area direction in Plan Chapter 3, which indicate that this activity is allowed only in MA 2.1 (and to a lesser degree in MAs 7.1 and 8.2). The table on page 2-3 should be corrected.

Characterization of Valley Bottom Land Type Association

The DEIS (page 3-58) states, "The Valley Bottom LTA is usually below 1,000 feet…". This statement is incorrect - in fact, only about 25% of this LTA lies below 1,000 feet[14]. Information derived from this assumption presents a misleading picture of the relative distribution of this LTA between natural and manipulated management areas. For example, DEIS Figure 3-03 indicates that about 22% of the Valley Bottom LTA is in management areas that maintain relatively natural conditions. Similarly, Table 3-70 indicates that 12% of Valley Bottom LTA currently lies in Wilderness. However, of the Valley Bottom LTA below 1000' in elevation, only about 2% currently lies within the non-timber LTAs listed in Figure 3-03, and only about 0.5% lies within Wilderness.

These figures indicate that lower-elevation portions of Valley Bottom LTA (i.e., below 1000') are almost totally unrepresented in "natural" management areas. The preferred alternative does not change this situation, and even the most protective Alternative 3 would increase the above figures only slightly. We believe that stronger protection for this component of the landscape is warranted, and believe it strengthens our argument for removing the entire Wild River valley bottom from MA 2.1.

Legal sufficiency

Our comments are based on the assumption that the development of the Plan and the DEIS meet all legally mandated requirements and procedures. We understand that questions have been raised in several areas regarding the legal sufficiency of the analysis. It should be understood that if these analyses are determined to be flawed then our comments in these areas may change.

Thank you for the opportunity to comment on the Draft Environmental Impact Statement and Proposed Land Resource Management Plan. We look forward to continuing our historic partnership with you to steward this most special of places for generations to come.

Sincerely,

Andrew J. Falender, Executive Director
Appalachian Mountain Club

[14] Based on GIS overlay of Ecological Land Type and 10-meter Digital Elevation Model data layers provided by USFS.

APPENDIX A

To: WMNF Planning Team
From: David Publicover, AMC Senior Staff Scientist
Re: Residual questions about updated roadless area inventory.

The AMC appreciates the work that the Forest Service did to update the Roadless Area inventory in response to earlier comments submitted by AMC and others. While the current inventory provides a much more accurate representation of these areas, there still appears to be some inconsistency in the boundary delineations. In some cases boundaries extended to roads, in other cases they do not. In some cases boundaries extend to the edge of WMNF ownership, in other cases they do not. Some areas were added that contain roads, while other areas containing no roads were left out.

This analysis is based on the systems roads data included with the Plan and DEIS documents. We understand that questions have been raised about the appropriate definition of "improved road" that should be considered in delineation of these areas. If it is determined that only a subset of the roads included in the FS data layer should be considered when delineating roadless areas this analysis would need to be adjusted.

The following are significant areas about which we have questions as to why they were excluded from the inventory and believe that they should have been included. For most of the areas we have identified, the current boundaries do not appear to follow any definable feature (roads, streams, ridges or contour lines). We understand that there can be legitimate disagreement over the appropriate delineation of roadless area boundaries, and we have avoided focusing on smaller areas or minor disagreements. However, 15 of the 17 areas we have identified are over 1,000 acres in size, and appear to represent significant exclusions for which we can find no justification.

Letters refer to the attached map.

Carr Mountain: Two areas:

- Area A (3,680 acres): A broad swath >1 mile wide south of Hubbard Brook.
- Area B (1,495 acres): Along the western boundary. Though this area is bisected by a snowmobile trail, that should not have been a consideration in roadless area delineation.

Dartmouth Range: Area C (1,070 acres) in the northeast corner out to Jefferson Notch Road and FR 467.

Great Gulf: Area D (960 acres) in the northwest corner out to FR 103 and FR 205.

Jobildunk: Area E (3,530 acres) on the eastern side out to the North-South Road. The current boundary appears to be drawn along the summit ridge of Mt. Clough, but it is over ¾ mile from here to the North-South Road to the west.

Kearsarge: Area F (1,545 acres) from Kearsarge Mountain north to FR 20. While this area is along the boundary of WMNF ownership, much of it abuts other conservation land (Merriman State Forest).

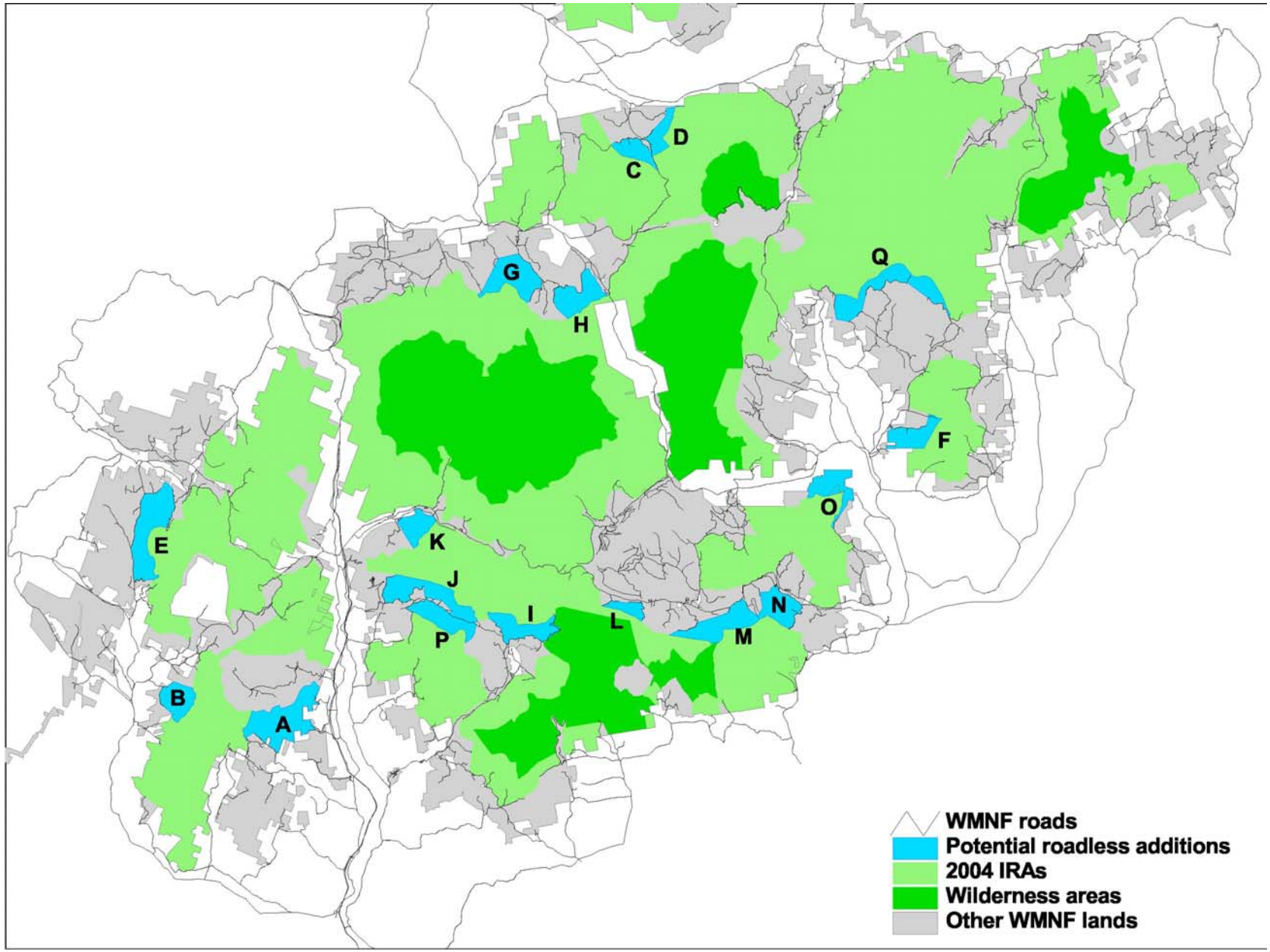
Pemigewasset: Two areas along the northern edge - Area G (2,565 acres) along the northern slopes of Mount Hale and Area H (2,050 acres) around Mount Tom.

Sandwich Range (including Chocorua): Six areas (I through N, ranging in size from 640 to 2,600 acres). Part of Area I may be questionable for inclusion because of the presence of the upper end of the Livermore Road, but there seems to be little reason to exclude the others. This area was extended out to major roads in several areas (including Route 16, the Kancamagus Highway, and the Sandwich Notch Road), so we do not understand why it was not extended out to minor system roads in these areas.

Table Mountain: Area O (1,700) acres from Little Attitash Mountain to Humphrey's Ledge**.**

Waterville: Area P (1,740 acres) along the northern side to the Tripoli Road.

Wild River: Area Q (3,025 acres) along the southern edge.


A
B
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O
P
Q
WMNF roads
Potential roadless additions
2004 IRAs
Wilderness areas
Other WMNF lands