



**DRAFT DEIS COMMENTS OF:**

**The Arizona Wilderness Coalition**

**Arizona Zoological Society**

**Center for Biological Diversity**

**Defenders of Wildlife**

**Grand Canyon Wildlands Council**

**Grand Canyon Wolf Recovery Project**

**Great Old Broads for Wilderness**

**New Mexico Wilderness Alliance**

**PEER**

**Rewilding Institute**

**The Sierra Club**

**Sky Island Alliance**

**Sky Island Watch**

**Southwest Environmental Center**

**The White Mountain Conservation League**

**WildEarth Guardians**

**The Wilderness Society**

**Winter Wildlands Alliance**

**PREPARED FOR THE UNITED STATES FOREST SERVICE'S DRAFT  
ENVIRONMENTAL IMPACT STATEMENT FOR THE APACHE-SITGREAVES  
NATIONAL FORESTS, ARIZONA**

**[75 FED. REG. 209, 66756 (October 29, 2010)]  
December 13, 2010**

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*Sent via email and certified mail this date*

Re: Draft Environmental Impact Statement for Public Motorized Travel Management Plan,  
Apache-Sitgreaves National Forests, Arizona

Dear Mr. Knopp,

We appreciate the opportunity to submit the attached comments in response to the Draft Environmental Impact Statement associated with motorized travel management in the Apache-Sitgreaves National Forests. The referenced attachments to our comments are included in the copy sent via ground mail. If you have any questions regarding this matter, please do not hesitate to contact us.

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## I. Introduction

The Arizona Wilderness Coalition, the Arizona Zoological Society, the Center for Biological Diversity, Defenders of Wildlife, Grand Canyon Wildlands Council, Grand Canyon Wolf Recovery Project, Great Old Broads for Wilderness, New Mexico Wilderness Alliance, Public Employees for Environmental Responsibility (PEER), the Rewilding Institute, the Sierra Club, Sky Island Alliance, Sky Island Watch, the Southwest Environmental Center, the White Mountain Conservation League, WildEarth Guardians, and The Wilderness Society, and Winter Wildlands Alliance are all signatories to these comments and have reviewed the Draft Environmental Impact Statement for Travel Management on the Apache-Sitgreaves National Forests (DEIS) and all additional maps, materials and reports.

Our organizations represent large member groups that are Arizona residents and active users of the Apache-Sitgreaves National Forests, as well as hundreds of thousands of members throughout the country.

We commend you and the members of the U.S. Forest Service Travel Management Team for the considerable effort that has been expended to produce the Proposed Action (PA), Travel Analysis Process Report (TAP), and Draft Environmental Impact Statement (DEIS). We realize the difficulties involved in responding to diverse public constituencies, local media coverage and trying to engage and inform the public in a transparent process from the outset.

We cannot offer our support for any action alternatives without significant modifications. We would however support some aspects of some alternatives, including those that would not add unauthorized trails to the system, that prohibit cross-country travel for motorized big game retrieval and motorized dispersed camping. We have identified proposed motorized roads and trails that would cause indefensible resource impacts and user conflicts. We have provided information on those routes in the body of the document as well as attached appendices.

Specifically, we find the DEIS deficient in the following areas:

- The proposed motorized route in the San Francisco River is in violation of several federal laws and is identified as an open route in all alternatives
- No Action/Baseline Alternative is inaccurate
- There is not an adequate range of alternatives
- The “Preferred” alternative allows routes with resource damage and continued user conflict
- There is no plan to ensure effective motorized recreation management and enforcement
- Exceptions to ban on cross country motorized travel are excessive
- The designated system does not reflect Forest Service budget capabilities
- There are excessive impacts to Inventoried Roadless Areas and Wilderness Areas
- Over snow vehicles are not included in this management plan

Our comments describe in depth why we believe the No Action/Baseline Alternative is incorrect

and legally indefensible. This is a fundamental flaw in the entire analysis and underlies many of the concerns we articulate throughout the remainder of the document.

In these comments, because resource damage is potentially caused by all forms of motorized vehicles, not exclusive to all-terrain vehicles and most cars are capable of travel off roads, we use the term “motorized vehicle” or “off-road vehicle” (ORV) to include off-highway vehicles, off-road vehicles, passenger cars, trucks, all-terrain vehicles, and snowmobiles, as defined in Executive Order 11644 as amended: “any motorized vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, swampland, or other natural terrain.” We also use the term “routes” to refer to roads and motorized trails and to emphasize the point that the environmental impacts analysis and protective measurement standards and guidelines should be predicated on the physical footprint of a particular route regardless of the bureaucratic classification of that route.

## II. Purpose and Need

The purpose of this project is “to comply with the Travel Management Rule by providing for a system of roads, trails, and areas designated for motor vehicle use that *reduces* impacts to biological, physical, and cultural resources on the forests.” Forest Service 2010 DEIS at 1.

The need for this project is described as a need for “a safe and efficient transportation system for public use, Agency administration, and resource protection, while recognizing historic and current uses of the forests.” The Forest Service goes on to identify specific needs:

- 1) identifying system roads that would be open to motor vehicle use;
- 2) identifying the system of motorized trails for vehicles of 50 inches or less in width;
- 3) the optional designation of the limited use of motorized vehicles within a specified distance of designated routes for motorized big game retrieval or motorized dispersed camping;
- 4) counter detrimental effects to resources from continued use of some roads and motorized trails and cross-country travel.

The purpose and need statement should more accurately reflect the intent of the Travel Management Rule and the purpose of travel planning. Specifically, we recommend the following statements of purpose and need be added:

- the need to address degradation of environmental, social, and cultural resources associated *both* with user-created routes *and* currently designated roads, trails, and areas, as identified through Travel Analysis;
- the need to — by way of a science-based analysis — “identify the minimum road system needed for safe and efficient travel and for administration, utilization, and protection of National Forest System lands” and identify roads that are “no longer needed to meet forest resource management objectives and that, therefore, should be decommissioned or considered for other uses, such as for trails”;

- the need to provide opportunities for motorized *and* non-motorized recreation within the carrying capacity of the land (minimizing damage to soil, watershed, vegetation, cultural sites, and other resources of the public lands; and minimizing harassment of wildlife or significant disruption of wildlife habitats).
- the need to adjust both the core transportation system and recreation travel network in light of funding limitations for maintenance, monitoring, and enforcement; and the need to address public safety concerns, user conflicts, private property rights, lost non-motorized recreational opportunities, and impact to natural soundscapes and air quality that have arisen or might be expected to arise given recent trends in motorized use.

Furthermore, the Forest Service should identify and obliterate unnecessary routes and develop a route restoration strategy wherein the Forest Service would identify and prioritize the routes slated for decommissioning, reclamation, and restoration, and establish a baseline analysis to support site-specific decommissioning and restoration activities. We recommend that the Record of Decision for this project include information that future decommissioning work will begin and include a timeline for the National Environmental Policy Act (NEPA) analysis required for any on-the-ground, ground-disturbing work that would occur with decommissioning.

We anticipate that the network of decommissioned and user-created routes requiring soft closure [e.g., vegetative screening techniques] or obliteration and complete restoration will be extensive, and we are under no illusions that the Forest Service can wave a magic wand and make these routes disappear. Nonetheless, it is incumbent upon the Forest Service to provide assurances and commitments to address this serious problem – a problem that causes persistent, ongoing, landscape-scale negative impacts to the forests and natural and cultural resources, which is why it is essential that the agency commit to a process and timeline for reclaiming decommissioned routes.

The persistence of negative impacts caused by closed or unauthorized user-created routes not yet obliterated and restored or disguised by a soft closure are significant, inextricably intertwined components of route designation decisions and their cumulative impacts and must be addressed as part of the current travel planning process. 40 C.F.R. §§ 1502.14, 1502.16, 1508.7, 1508.8; *see also Kern v. U.S. Bureau of Land Management*, 284 F.3d 1062, 9<sup>th</sup> Cir., 2002. The Forest Service should use the information from the TAP and the TMP NEPA process to begin “rightsizing” the forest road system immediately.

Rightsizing means getting rid of or repurposing unneeded and destructive roads so the Forest Service can effectively maintain an optimized system of roads that provide quality access for visitors and forest managers, are affordable to maintain, and are environmentally sustainable. Benefits of rightsizing include:

- 1) Providing quality access for recreation and other management needs;
- 2) Making the road system affordable to manage, improving maintenance for the roads we use and need;
- 3) Creating long-term, sustainable jobs in rural communities (Estimates show that every \$1 million spent on road decommissioning creates up to 24 direct and indirect jobs. This is

especially important in the White Mountains of Arizona where rural communities are dependent on the forests for jobs as well as recreation);

- 4) Ensuring clean drinking water sources and healthy fisheries; and
- 5) Minimizing disturbances to wildlife habitat including cores and corridors.

Diverse organizations support “rightsizing,” including the Western Governors Association, U.S. Conference of Mayors, multiple U.S. senators and representatives, Taxpayers for Common Sense, the hunting and angling community, as well as recreation constituencies representing outdoor industry, hiking, paddling, biking, and others.

Nationally, the Forest Service has over 375,000 miles of official roads and an additional 60,000 miles of user-created routes—enough to wrap around the earth 15 times, and 10 times the size of the U.S. Interstate system. Locally, the Forest Service has identified 7,656 official system roads (3,591 of which are closed or decommissioned), and has not identified the number of user-created routes on the ground. Forest Service 2008 TAP at 20. Leftover from the era of big timber and mining, the road system is convoluted and unmanageable, and most roads lead nowhere and go unmaintained for years. These roads do not meet the growing recreational needs of our communities, and have led to a host of environmental problems—most notably polluting the drinking water sources for millions of Americans and fragmenting wildlife habitat. Moreover, this oversized system is expensive, with backlogged maintenance estimated between 4-10 billion dollars and annual costs exceeding budgets by over 400% nationally. The Apache-Sitgreaves has a maintenance backlog of over \$50 million and annual costs exceed the budget by over 300%. Forest Service 2008 TAP at 36. The result is that the roads we actually need and use, including those critical for recreation access, are being starved of maintenance funding nationally and locally.

Recent Washington Office direction to the field (attached as Appendix A) requiring each unit to complete a Travel Analysis to “identify and maintain an appropriately sized and environmentally sustainable road system” (36 CFR 212 subpart A), requires that each Forest Service unit:

- 1) identify the minimum road system needed for safe and efficient travel and for the protection, management, and the use of NFS lands; and
- 2) identify roads that are no longer needed to meet forest resource management objectives and therefore scheduled for decommissioning or considered for other uses.

Forests are expected to identify and maintain an appropriately sized and environmentally sustainable road system that is responsive to ecological, economic, and social concerns. Each region is also directed to set up a team to oversee the process led by the regional Watershed, Fish, Wildlife, Air, and Rare Plants division and supported by Engineering and Recreation. Once certified by the regional forest, units are directed to immediately use the TAP reports to inform project and forest plan NEPA decisions to achieve the TAP recommendations.

The Apache-Sitgreaves National Forests have made steps towards complying with the recent Washington Office direction, including completing a TAP and identifying a minimum road system. By taking the next steps of using the minimum road system identification to inform the travel management planning process, identifying roads for decommissioning and obliteration, as

well as developing a schedule for implementing decommissioning and obliteration, this forest can further move towards “rightsizing” its road system, ahead of many forests in the country. This will ensure funding for road maintenance into the future, ensure the public has safe access to the forest, and address serious resource damage occurring on the forest.

### III. Range of Alternatives

The Forest Service has failed to consider a reasonable range of alternatives designed to meaningfully protect the Apache-Sitgreaves National Forests’ natural resources, in particular clean water, wildlife, and wildlife habitat, and therefore is in violation of NEPA and the Council on Environmental Quality (CEQ) regulations.

The “alternatives provision” of 42 U.S.C. § 4332(2)(E) requires an agency to give full and meaningful consideration to all reasonable alternatives. *Native Ecosystems Council v. U.S. Forest Service*, 428 F.3d 1233, 1245 (9th Cir. 2005); *see Bob Marshall Alliance v. Hodel*, 852 F.2d 1223, 1229 (9th Cir. 1988) The Council on Environmental Quality’s NEPA regulations describe the alternatives section as the “heart” of the EIS, and require that an EIS’s alternatives section “[r]igorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.” 40 C.F.R. § 1502.14. NEPA regulations provide that an EIS must include “the alternative of no action,” as well as a “hard look” at “all reasonable alternatives.” 42 U.S.C. § 4332(c); 40 C.F.R. § 1502.14(a), (d). In examining the reasonableness of an EIS’s alternatives and elimination of alternatives from analysis, a court first looks to whether the “Purpose and Need” was reasonable, and then whether the alternatives considered were reasonable in light of that goal. *Surfrider Found. v. Dalton*, 989 F.Supp. 1309, 1327 (S.D. Cal. 1998), *aff’d per curiam*, 196 F.3d 1057 F.3d 1057 (9th Cir. 1999). Regarding alternatives rejected for full evaluation, a court asks “whether the summary rejection of these sites was unreasonable, such that the [EIS] failed to consider a reasonable range of alternatives.” *Id.* at 1327–28 (“An unreasonable failure to consider a viable alternative renders an alternatives analysis inadequate.”).

The Forest Service Handbook guides managers to “develop . . . alternatives fully and impartially . . . [and to] ensure that the range of alternatives does not prematurely foreclose options that might protect, restore, and enhance the environment.” Forest Service Handbook 1909.15 § 14. Much legal precedent guards against an insufficient range of alternatives.<sup>1</sup> NEPA also requires

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<sup>1</sup> “An agency must look at every reasonable alternative, with the range dictated by the nature and scope of the proposed action.” *Nw. Envtl. Def. Ctr. v. Bonneville Power Admin.*, 117 F.3d 1520, 1538 (9th Cir. 1997). An agency violates NEPA by failing to “rigorously explore and objectively evaluate all reasonable alternatives” to the proposed action. *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1310 (9th Cir. 1990) (quoting 40 C.F.R. § 1502.14). This evaluation extends to considering more environmentally protective alternatives and mitigation measures. *See, e.g., Kootenai Tribe of Idaho v. Veneman*, 313 F.3d 1094, 1122–23 (9th Cir. 2002) (and cases cited therein). NEPA requires that an actual “range” of alternatives is considered, such that the Act will “preclude agencies from defining the objectives of their actions in terms so unreasonably narrow that they can be accomplished by only one alternative (i.e. the applicant’s proposed project).” *Col. Envtl. Coal. v. Dombek*, 185 F.3d 1162, 1174 (10th Cir. 1999) (citing *Simmons v. U.S. Corps of Eng’rs*, 120 F.3d 664, 669 (7th Cir. 1997)). This requirement prevents the EIS from becoming “a foreordained formality.” *City of New York v. Dep’t of Transp.*, 715 F.2d 732, 743 (2d Cir. 1983). *See also Davis v. Mineta*, 302 F.3d 1104 (10th Cir. 2002).

that agencies “present complete and accurate information to decision-makers and to the public to allow an informed comparison of the alternatives considered in the EIS.” *Natural Res. Def. Council v. U.S. Forest Serv.*, 421 F.3d 797, 813 (9th Cir. 2005). The Forest Service failed in this mandate by not considering in detail the alternatives described throughout the remainder of this section. This failure has caused the Forest to foreclose options that would protect, restore, or enhance the environment. Moreover, the Forest Service failed to provide a rational explanation as to why these alternatives should not be considered in detail.

Under all alternatives the San Francisco River will be designated as a motorized route from the Martinez Ranch to Clifton, AZ. Similarly, no unauthorized routes are rehabilitated, therefore they will remain on the ground leading to continued resource damage, which is not analyzed in the DEIS. There is no alternative that would allow the Forest Service to analyze the impacts of a reduced motorized route network on wildlife, soils, watersheds, riparian vegetation or other resources within the forests. There is no alternative that completely eliminates routes inside of Inventoried Roadless Areas (IRAs). There is no alternative that would significantly improve wildlife habitat in particular for native fishes or Mexican gray wolves. There is no alternative that provides the Forest Service or the public with a road system based on the minimum system needed for administration and use, as required by the Travel Management Rule. There is no alternative that represents a fiscally responsible route system.

To ensure compliance with NEPA and the CEQ regulations, the Forest Service must:

1. Consider alternatives that would aggressively reduce overall route densities within acceptable science-based ecological limits across the entire district;
2. Consider alternatives that would determine how best to physically close, decommission, and obliterate unnecessary or unacceptable routes, in particular unauthorized, user-created routes;
3. Consider alternatives that would not only reduce route densities, but entirely eliminate routes within key areas to protect environmentally sensitive watersheds and wildlife habitats and minimize user conflicts by establishing additional quiet-use recreation areas, particularly: motorized use of the San Francisco River; routes in IRAs and wolf habitat.

We ask the Forest Service to develop and analyze an alternative that incorporates the above recommendations and thereby balances the needs of wildlife with the desire to improve quality motorized trail opportunities. This requires the Forest Service to develop a supplementary DEIS or allow public review and comment on the FEIS prior to issuing the record of decision for this project.

### **A. Similarities of Alternatives**

The DEIS presents four alternatives for public review, plus the “No Action” Alternative. Alternative A is the no action alternative, Alternative B is the preferred alternative, Alternative C

is the “more access for motorized camping and game retrieval via more routes” alternative, Alternative D is the “more access for motorized camping and game retrieval via more routes and corridors” alternative and Alternative E is the “more roads but fewer corridors” alternative. **We do not find an alternative that adequately protects natural resources and therefore do not support any of these alternatives as presented. The route recommendations we presented during scoping are not represented in the range of alternatives.**

The table below demonstrates the lack of a range of alternatives for key issues:

**Table 1: Comparison of Action Alternatives**

<b>Resource Area Or Metric</b>	<b>No Action Alt A</b>	<b>Alternative B Preferred Alt</b>	<b>Alternative C</b>	<b>Alternative D</b>	<b>Alternative E</b>
<b>Motorized Route in San Francisco River</b>	Yes	Yes	Yes	Yes	Yes
<b>Add unauthorized routes to the system</b>	No	Yes 87	Yes 28	Yes 109	Yes 84
<b>Change in open route miles</b>	No change	-5.6% roads + 72% trails <sup>2</sup>	-1% roads 0% trails	-3.6% roads +94%	-12.7% roads +49% trails
<b>Allows cross-country travel for dispersed camping</b>	Yes	Yes  300' corridor	No  No corridor	Yes  300' corridor	Yes  300' corridor
<b>Allows cross-country travel for MBGR</b>	Yes	MBGR for 1 mile	MBGR for 1 mile	MBGR for ¼ mile	No
<b>Maintenance Costs</b>	\$4.77 Million	\$4.72 million	\$4.77 million	\$4.736 million	\$4.59 million
<b>Miles of road in IRAs<sup>3</sup></b>	40	31	40	31	23
<b>Miles of road in Blue Range Primitive Area</b>	0.2	1.2	1.2	1.2	1.2
<b>Miles of road in Eligible Wild and Scenic River Corridors</b>	76.9	80	77.7	82	64
<b>Impacts to local economy</b>	None	No measurable effect	No measurable effect	No measurable effect	No measurable effect

<sup>2</sup> The additional miles of motorized trails is apparently the addition of user-created routes.

<sup>3</sup> It is not explicit whether any new miles of motorized road are being designated in IRAs. We ask for clarification on this point in a SEIS.

<b>Impacts to Plants</b>	Crushing, burying	Less than A	Less than A and B	Less than A, B, and C	Less than A, B, C, and D
<b>Soil Erosion</b>	650 miles road on TES Soils  230 miles road on >40% slope	No change	No change	No change	No change
<b>Stream Crossings</b>	2,700	2,500	2,700	2,500	2,300
<b>Likely to Adversely Affect Threatened and Endangered Fish</b>	7 species 3 Critical Habitat	No change	No change	No change	No change

We believe that *none* of the alternatives analyzed comply with the TMR 36 C.F.R. § 212.55(a), which requires the Forest Service to consider the effects on natural and cultural resources, the need for maintenance and administration of roads, trails, and areas, the availability of resources for that maintenance and administration, nor do any of the alternatives comply with section 212.55(b), which requires the responsible official to minimize damage to soils, watersheds, vegetation, wildlife and habitat. Similarly, none of the alternatives comply with the Executive Orders that require the Forest Service to minimize impacts to natural resources.

## **B. Alternatives Eliminated from Consideration**

### **1. Fiscally responsible alternative**

The alternatives considered but eliminated from detailed study include a fiscally responsible alternative, which would have analyzed the impacts of a road system the Forest Service could reasonably afford to maintain. While it might not be realistic to implement this alternative, which would have designated just 850 miles of road forest-wide, it should not have been excluded from detailed analysis. Forest Service 2010 DEIS at 25. Analyzing an alternative that presents a realistic picture of a road system that is bounded by fiscal realities would have offered a valuable baseline with which other alternatives could have been compared. Analyzing alternatives that fly in the face of fiscal realities in a vacuum, without comparing the impacts of a manageable, maintainable route system, leads to an unrealistic view of the impacts of adopting an unaffordable route system.

### **2. Minimum System alternative**



There is no alternative which provides the Forest Service or the public with a road system based on the minimum system needed for administration and use. The rationale provided in the DEIS for rejecting the minimum system alternative includes the following:

- 1) there was a “strong desire” by the public for more motorized access, including for dispersed camping and game retrieval;
- 2) the range of alternatives analyzed provide for a road system smaller than what currently exists;
- 3) the Travel Management Rule does not focus on a system of roads (citing 36 C.F.R. 212.51(a)) and does not require the adoption of the minimum system; and
- 4) the purpose and need for this project is to meet the requirements of the Travel Management Rule.

We address each of these issues in turn:

- 1) We can find no reason why our very strong desire, which we have exhaustively expressed in comments and conversations with agency staff, to have the Forest Service analyze an alternative that included the minimum system was dismissed. We would like to again make it clear that there is a strong desire by a large number of interested public persons and groups represented in this letter, and our prior scoping comments, that an alternative be analyzed that is based on the minimum system identified in the TAP. It would appear to be arbitrary and capricious for the Forest Service to consider the “strong desire” of one user group while ignoring the “strong desire” of another group, especially when one the user group ignored presented scientific references for our position.
  - a. We note here that the Forest Service website provided a comment form during scoping (attached as Appendix B) that clearly could have skewed the comments submitted by the public during the open comment period. This same comment form is available on the Apache-Sitgreaves National Forests’ Travel Management page as of December 9, 2010. We have repeatedly asked the Forest Service to remove this biased form via email and phone calls but was not done until December 10, 2010. (Email correspondence attached as Appendix C). While we sincerely appreciate the Forest Service finally adding the correct comment form to the website, it is our concern that this form has resulted in the apparent “strong desire” for more motorized access both during scoping and during the DEIS comment period and came much too late in the DEIS comment period.
- 2) While the range of alternatives analyzed may provide for an alternative that is smaller than what currently exists, there is no alternative that is even remotely close to analyzing the system identified as the minimum system, which is 1,180 miles, less than half the road mileage of any alternative presented.
- 3) We disagree with your assertion that the Travel Management Rule does not focus on a system of roads and does not require the adoption of the minimum system. The Travel Management Rule defines the *Forest Transportation System* as the system of National Forest System roads, National Forest System trails, and airfields on National Forest System lands. 36 C.F.R 212.1. We ask for clarification: if the travel management rule focuses on motor vehicle use on National Forest System roads, trails and areas rather than a road system, and the Apache-Sitgreaves National Forest does not believe this use is

occurring on the Forest Transportation System, where is such use occurring? In addition, 36 C.F.R. 212.5(b) Road System – requires the identification of the minimum system by the responsible official. This is the road system needed for safe and efficient travel and for administration, utilization, and protection of National Forest System lands, based on a science-based roads analysis, involving the public, determined to meet resource and other management objectives and statutory and regulatory requirements, reflect long-term funding expectations and minimizing adverse environmental impacts. This does appear to in fact focus on a system of roads.

- 4) Subpart A of part of the TMR. *See above*, page 11. The Apache-Sitgreaves National Forests developed a TAP and identified a Minimum Road System, the public requested analysis of an alternative that reflected the minimum road system and there is no valid explanation for why this alternative was not fully analyzed.

### **C. Alternative that adequately protects natural resources was not analyzed**

An alternative that would have closed routes that had serious negative impacts to threatened and endangered species, management indicator species, and riparian areas, was not adequately considered by the Forest Service in violation of the requirements of the NEPA to rigorously explore and objectively evaluate all reasonable alternatives and discuss the reasons for eliminating any alternatives that were not developed in detail. 40 C.F.R. 1502.14. Specifically, we recommended the Forest Service analyze a route system that would result in a route density of no more than 1.0 mile/square mile, a standard supported by a large and influential number of scientists. Concerned Scientists 2004. The failure to develop and analyze an alternative that would result in our recommended route density requires the withdrawal of the DEIS and the preparation of a supplemental DEIS that analyzes such an alternative.

We provided the Forest Service with a list of specific route recommendations and rationale that have not been adequately considered by the Forest Service. We submitted these specific recommendations during scoping. We based our recommendations upon a route density of 1.0 mile/square mile route density, an enforceable route system, protection of threatened, endangered and sensitive species (Mexican spotted owl, Mexican gray wolf, northern goshawk, lesser long-nosed bat, black footed ferret, southwestern willow flycatcher, Chiricahua leopard frog, Gila chub, Little Colorado spinedace, spikedace, Apache trout, loach minnow; pronghorn, black bear and mountain lion), crucial core habitat including proposed wilderness areas, and proposed wildlife habitat areas and wildlife corridors among other concerns.

We do not find any alternative that reflects these recommendations nor do we see any rational explanation for why our recommendations were rejected. All action alternatives would result in a “likely to adversely affect” finding for seven species of native and imperiled fishes analyzed. At least one alternative should be developed that would result in a “no effect” finding for some, if not all species of threatened and endangered fishes in the Apache-Sitgreaves National Forest.

### **D. Alternative that identifies routes for decommissioning and develops a schedule for obliteration was not analyzed**

Under all alternatives no unauthorized routes are rehabilitated: therefore they will remain on the ground leading to continued resource damage, which is not analyzed in the DEIS.

An alternative must be developed and analyzed that would identify, decommission and schedule for obliteration, unnecessary routes in the Apache-Sitgreaves National Forests. We again recommend that unauthorized, high clearance routes be prioritized for decommissioning and obliteration because these routes are likely contributing much more sediment than those routes that were engineered to Forest Service standards.

#### **IV. The Baseline, No Action Alternative Must be Supported By Appropriate Documentation**

The appropriate baseline of existing system routes consists of those routes which have been documented in relevant NEPA analysis. We believe that any routes lacking documentation should be analyzed as new unauthorized routes, in recognition of the fact that there is no record of an administrative decision or analysis addressing the environmental impacts of motor vehicle use on these routes. Although we recognize the challenges associated with locating adequate supportive documentation given a past history of poor recordkeeping, we fundamentally reject the position that justification for a specific route can be established solely based on a route's inclusion in the INFRA database. We understand that past travel management decisions should be respected—provided that conditions on the ground have not changed, thus requiring new NEPA analysis—but the Forest Service must be careful not to assume that certain decisions with respect to motorized use have been made and are still valid.

To address this issue, we strongly recommend that the Forest Service develop a “documentation” spreadsheet which would supplement the description of the no action alternative, and would eventually accompany the Motor Vehicle Use Map (MVUM). This spreadsheet would summarize the NEPA decisions, together with other relevant documentation (e.g., formal adoption of road/trail objectives for the route; information establishing consistent maintenance expenditures over time, etc.) supporting the inclusion of each route on the authorized system. We have included a sample spreadsheet to serve as an example. *See* Appendix D. Such documentation would include NEPA analysis and decision documents and reasons why the route satisfies route designation criteria (*see* section 3 of Executive Order 11644; 36 C.F.R. § 212.55). Routes lacking such documentation should be marked accordingly, and if the Forest Service designates the route in the final decision, it must include site-specific analysis of that route in this process.

We request that the agency compare proposed route additions to our “limited to system routes” alternative and baseline as it will provide a much more accurate picture of ongoing impacts related to motorized recreation and allows for a true analysis of the impacts of route systems in each of the proposed alternatives.

##### **A. The “Baseline,” Current System, as Illustrated in the No Action Alternative Map Is Inaccurate and Unsupported by Required Documentation**

The Apache-Sitgreaves National Forest has incorrectly included decommissioned roads, Operational Maintenance Level 1 roads (i.e., *closed* roads), and intermittent term and short-term service roads in the baseline system. This has resulted in an inaccurate No Action Alternative in the Environmental Impact Statement (EIS). A site-specific environmental impact analysis as well as a cumulative impact analysis is required if the Forest Service intends to designate these roads for public motor vehicle use by including them on the MVUM. These roads were identified by cross-referencing the Apache-Sitgreaves National Forest's INFRA data<sup>4</sup> with the No Action/Alternative A map to identify data discrepancies. We explain the discrepancies and defects in the baseline in detail in this section.

Additionally, the Forest Service has acknowledged that 375 miles of motorized routes coded in the INFRA database as closed and 100 miles coded as decommissioned were arbitrarily changed to open motorized routes in the INFRA database outside of any NEPA process and literally in the midst of this Travel Management Planning process. Forest Service 2010 DEIS at 11. While the Forest Service has characterized these arbitrary changes to the INFRA database as “corrections,” this is exactly the type of modification of the INFRA database that we fear has been ongoing for years resulting in a very inaccurate baseline: as the Forest Service states at page 11 of the DEIS: “[t]he 2,832 miles of open NFS roads shown under the existing condition now includes this 475 miles of incorrectly coded roads in the database.” We request the NEPA documentation supporting each of these “corrections,” so that we can independently confirm that the agency has not arbitrarily recoded these routes as currently open so as to avoid the site-specific environmental analysis required for designation of the routes as open to public use in this process.

### **B. NEPA and Forest Service Guidance require the Forest Service to Establish an Accurate Baseline of its Open, Designated System**

In violation of NEPA, the TMP no action map characterization of the baseline transportation system and the extent of the road system that is currently open to motorized travel by the public is inaccurate. An accurate accounting of the true extent of the existing, designated transportation system is a critical step in setting the appropriate baseline for analysis.

The environmental baseline is an integral part of an EIS, because it is against this information that environmental impacts are measured and evaluated; therefore, it is critical that the baseline be accurate and complete.

*Or. Natural Desert Ass'n v. Shuford*, No. 06-242-AA, 2007 WL 1695162, at \*4 (D. Or. June 8, 2007) (citing *American Rivers v. Fed. Energy Regulatory Comm'n*, 201 F.3d 1186, 1195 & n. 15 (9th Cir. 2000)). Further, NEPA requires that agencies “present complete and accurate information to decision makers and to the public to allow an informed comparison of the

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<sup>4</sup> INFRA data was provided to The Center for Biological Diversity on November 17, 2010, via an email from Tami Conner with a link to a Forest Service FTP site. This email is attached as Appendix E. The 2007 INFRA data was provided to The Center for Biological Diversity from Wildlands CPR. Wildlands CPR received this INFRA data from the Forest Service as a result of a FOIA request in 2005 to 85 National Forests. All information in response to this FOIA request was received by Wildlands CPR in November 2008, with most of the information received in 2007.

alternatives considered in the EIS.” *Natural Res. Def. Council v. U.S. Forest Serv.*, 421 F.3d 797, 813 (9th Cir. 2005).

In the context of travel planning, recent case law in the Northern District of California instructs land management agencies that the baseline should clearly disclose and distinguish between official system routes that have been previously subjected to NEPA and user-created routes that arose as a result of cross-country travel. *Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt.*, 2009 U.S. Dist. LEXIS 90016, at \*43 (Sept, 29, 2009). The baseline open, designated system should clearly identify motorized system routes that: 1) are supported by prior NEPA analyses or decision documents that justify their inclusion on maps and in spatial databases; 2) were constructed prior to the passage of NEPA and can be documented as such; or 3) have not been closed or decommissioned through other NEPA decisions. The baseline existing, designated system cannot contain any decommissioned routes, Operational ML 1 roads (i.e., *closed* roads), temporary roads, non-motorized trails, or user-created routes (even where those routes may have been used as a result of a cross-country travel regime) because either public motorized use of those routes has never been analyzed in a NEPA document or prior NEPA decisions have closed the routes to public motorized use. In other words, those roads do not comprise the status quo open, designated system, and must be analyzed on a site-specific basis within the action alternatives in order to add them to the designated system. The analysis required to add these routes should include not only the site specific impact of designating a road or trail for motorized use but also the impacts of the use that will occur on the route, as well as the potential for any increased use of the route.

Existing Forest Service direction and guidance supports our explanation of what may be included in the baseline open, designated system. The Forest Service Handbook provides guidance regarding how to define the baseline system when setting up the analysis:

#### 11.1 - Baseline System

Consolidate existing direction on travel management for the area under consideration into a single location. This step should not create new direction. Rather, this step involves compiling past decisions that guide motor vehicle use, including maps, travel atlases, road and trail management objectives (FSM 7714), maintenance records, and monitoring reports for National Forest System (NFS) roads and NFS trails on the administrative unit or ranger district. FSH 7709.55, Ch. 10.

For ease of reference, we include the Forest Service Handbook reference noted above here:

FSH 7709.55, Chapter 10: 7703.26 – Adding Roads to the Forest Transportation System

1. Consistent with FSM 7703.12, paragraph 7, before adding roads to the forest transportation system, carefully consider and document the road management objectives (see FSM 7714), environmental impacts, and social and economic benefits associated with the proposed additions.

2. Decisions to add roads to the forest transportation system must be informed by travel analysis (FSM 7712 and FSH 7709.55, ch. 20) conducted at an appropriate scale, as well

as appropriate site-specific environmental analysis and public involvement. Desired conditions are described in the applicable land management plan (FSM 1920). Consider values affected by new NFS roads, including access to, utilization, protection, and administration of NFS lands; public health and safety; and valid existing rights. Consideration must be given to long-term road funding opportunities and obligations. In examining the environmental effects of new roads, consider:

- a. Effects on associated ecosystems;
  - b. Introduction of invasive species;
  - c. Effects on threatened and endangered species and areas with significant biodiversity, cultural resources, fish and wildlife habitat, water quality, and visual quality;
  - d. Effects on recreation opportunities; and
  - e. Effects on access to NFS lands.
3. Decisions to add roads to the forest transportation system may involve constructing NFS roads, acquiring NFS roads through land purchases or exchanges, and adding unauthorized roads to the forest transportation system.

Southwestern Regional Guidance further explains how the Forest should define its baseline condition:

Existing travel management direction and associated documentation determines the system of roads, trails and areas considered open to public motorized travel.

Existing direction comes from: laws and regulations; official directives; Forest Plans; Forest Orders; Roads Analysis, including forest-wide and watershed or project specific Roads Analysis; and travel analysis. Additional sources of information about a Unit's managed system comes from: road and trail management objectives (RMO's/TMO's); maps, including visitor and travel management maps; Recreation Opportunity Guides (ROG's); road and trail maintenance records; Infra; and other sources. Travel Management Rule Implementation Guidelines, Revision 4, p. 3.

Thus, the Region 3 Guidance and Forest Service Handbook clearly state that it is the existing management direction that defines the system of roads, trails and areas that are open for public motorized travel, and, therefore, it is this existing direction that should also define the no action alternative and baseline management situation to which all alternatives should be compared.

**C. Data Discrepancies Exist Between INFRA and the Current Condition Maps Regarding the Existing, Baseline Transportation System that must be corrected.**

We have identified numerous roads that appear in the Apache-Sitgreaves National Forest's 2010 INFRA database as system roads open for public motor vehicle use but are indicated in a 2007 INFRA database as a road that is either currently closed or not meant for public long-term motor vehicle use. The routes were identified by comparing a 2007 INFRA database with a 2010 INFRA database and identifying discrepancies. In particular, the roads included in the attached Excel Spreadsheet (Appendix F, ASNF Data Errors) should not be treated as open system routes in the baseline and current condition map unless the Forest Service can point to the NEPA decision that designated these routes as open for public motor vehicle use between 2007 and 2010. As far as we can tell from this data, the Forest Service made decisions about these roads at some point in the past that they were inappropriate for public motorized use and, at some point in the past 3 years, the Forest Service changed this designation. We are concerned that by including these roads in the baseline condition, the Forest Service has created a scenario in which it will side-step the site-specific analysis required by NEPA, the Travel Management Rule, and Executive Order 11644 before designating motorized routes. In other words, as a result of the false "baseline condition" applied in existing designated system, no site specific environmental analysis will be undertaken for these routes. These routes should not be designated for public motor vehicle use or appear on the MVUM without first pointing to the NEPA decision that originally designated these routes as being open for long term public motor vehicle use or, barring this documentation, a site specific environmental analysis.

In Appendix F, we've included all roads that have a data discrepancy between the 2007 and 2010 INFRA databases. Our analysis looked for variances in the following INFRA fields: Route Status, Operational Maintenance Level, and Service Life headings.

The columns with "Route Status" in the heading (both for 2010 and 2007) includes roads that are categorized in the 2007 INFRA data set as "decommissioned" (defined as a route that was no longer needed and has been removed from service) but identified as open for motorized use in the 2010 data set. We also cross-referenced these discrepancies with the No Action Alternative map wherein the map, too, shows these routes as open to the public for motorized use.<sup>5</sup> These discrepancies (or changes) from "decommissioned" to "open" must be supported by NEPA documentation. Without this documentation, these roads must not appear on the No Action maps as being open for public motorized use as part of the existing condition.

The column labeled "Operational Maintenance Level" (both for 2010 and 2007) lists roads that also have inconsistent coding between the two data sets. The discrepancies identified must be supported by NEPA documentation. We have identified some of these routes labeled "open" in the current condition, but are labeled in the 2010 INFRA as "basic custodial care (closed)" (defined as an intermittent service road closed to public vehicular traffic). These roads should not be included as part of the existing condition as being open for public motorized use without the requisite NEPA documentation that designated these routes as open to the public for motorized use. As far as we can assess, at some point in the past, a decision was made to explicitly close these roads for public motorized use. Without the necessary NEPA documentation, these roads must not appear on the No Action maps as being open for public motorized use as part of the existing condition.

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<sup>5</sup> All INFRA database definitions are from the Travel Routes National Data Dictionary, Roads, Infrastructure Application, Version 1.5, Nov. 2006.

The column labeled “Service Life” includes those roads categorized for “short term service” (defined as a road for short term use—including temporary roads) or “intermittent term service” (defined as a road closed to vehicle traffic between periods of use; the closed period must exceed one year). Roads categorized as short term service or intermittent term service were not constructed for long-term public motor vehicle use and were not intended for motorized recreational use and, as such, should not be included in maps depicting the current situation. We have identified routes with discrepancies between the two data sets. These discrepancies need to be supported by NEPA documentation.

It is inappropriate for the Forest Service to list any of these roads as open *system* routes for motor vehicle use when: 1) prior decisions have closed the roads (the definition of ML 1 is “closed” to public motorized use), 2) the Forest Service has never analyzed the individual routes’ appropriateness for public motorized use or the environmental effects of motorized recreational use of the route, or 3) the Forest Service has set up its analysis such that the current condition carries through the action alternatives and the agency never completes a site-specific analysis before deciding to designate any of these “current condition” routes. Including these routes in the decision without the appropriate environmental analysis and public involvement is arbitrary and capricious and a violation of NEPA.

Inconsistencies between INFRA and what the Forest Service has included as part of baseline transportation system should be addressed prior to the release of a supplementary DEIS or FEIS, and through a public process (i.e., additional NEPA analysis). The Wilderness Society pointed out similar potential errors to the Tahoe National Forest during its travel planning process, including that multiple ML1 roads were listed improperly as baseline system roads open to public motor vehicle use. In response, that forest performed a check of all of their transportation NEPA documents and Road Management Objectives, finding over 500 miles of routes that were incorrectly marked on the alternatives maps, correcting them, and issuing a Supplemental DEIS as a result. As a result, each action alternative was reduced significantly because the agency recognized that it had not honored its prior decisions, nor completed the site-specific analysis required in order to reverse them. In order for the Forest Service to determine which of the roads included in the various condition classes described above were constructed, designed, designated, and intended for long-term motorized use, and can therefore be included in the current condition, an exercise similar to that undertaken by the Tahoe National Forest clearly is warranted by the Apache-Sitgreaves National Forest.

#### **D. Disagree that information changed in INFRA were “Mistakes”**

It is difficult to understand how the current Forest Service personnel can determine that certain roads were incorrectly classified in the INFRA database without producing NEPA documentation that contradicts INFRA data. Don Hoffman, retired Forest Service employee on the Alpine Ranger District, provides the following account of process of how the transportation system was classified in the 1980s:

In the late 1980s, the Apache-Sitgreaves National Forests undertook a process, known as Resource Access and Travel Management (RATM), with the intent to map, evaluate and



classify all of the roads on the Forest. It was a painstaking process that committed several District employees to study a myriad of District maps. On the Alpine Ranger District the primary participants included Clyde Porter and Dennis Laplander (longtime District Timber Sale Administrators), Gary Slaughter (lead timber marker) Richard Fajardo (Fire Prevention Supervisor), Herman Najar (Dozer Operator who often closed out Timber Sales with Knutson-Vandenburg timber revenues) and me, Don Hoffman (Dispersed Recreation Manager). Resource staff officers, Bob Dyson, Gary Davis, Kery Nedrow and Gene McDorman, were actively involved and all other District personnel were invited to participate.

The effort took several months to complete. All roads were carefully identified on each 15 minute quadrangle map and then the project records were examined to determine what the management objectives were for each road. At that time, the Alpine Ranger District was a heavily logged District so a primary information source was the Timber Sale project files. Nearly all of the roads on the District were originally constructed and/or improved through the implementation of Timber sales. Each timber sale had a close out map of the road system showing which roads were intended to be left open, closed or obliterated. In addition we reviewed the project file specialist reports which often indicated the transportation system decisions and the rationale behind them.

During the RATM process the locations of the roads were transferred by hand from the Timber Sale and other project maps to the District Quadrangle maps and were checked with aerial photos. The final product was a set of hand drawn maps with the management objectives of each road segment coded by color.

In the late 1990s the Forest Service incorporated the RATM map data into the INFRA Database. Originally, all Forests were expected to GPS survey each known road and to enter the management objectives into a query-able database. The Apache-Sitgreaves Forest Supervisor at the time, John Bedell, decided that the Forest was not able to afford the full GPS survey of all routes, so the accuracy of the maps were slightly improved using selective GPS survey and aerial photo overlay. The management objective data was transferred from RATM and was updated regarding project decisions that occurred since the completion of RATM. The INFRA process did not reevaluate the archived project files that preceded RATM.

It certainly is possible that due to lack of monitoring or enforcement the current public use of specific roads may not reflect the management objective decisions recorded in RATM and INFRA. For example, the road closure signs that were installed in Paddy Creek and Little Creek on Escudilla Mountain have for ten years been thrown aside, encouraging unauthorized use. However, unauthorized use should not and cannot be used by current personnel to determine that previous management decisions were in error or should be modified. To determine that the INFRA road data regarding management objectives was in error would require the discovery of NEPA documentation that contradicted the data in RATM or INFRA.

### ***Recommendation***

The Forest Service must provide an accurate accounting of the existing, open, designated system, so that decision-makers and the public understand what is contained in the baseline and are able to compare the action alternatives to the existing, designated system. NEPA documentation supporting all discrepancies between the 2007 and 2010 INFRA data sets must be provided.

Unfortunately, we can only conclude, and the Forest Service admits at page 11 of the DEIS, that the Forest Service mischaracterized the baseline designated transportation system. In turn, this has led to an inaccurate No Action Alternative. There are clearly problems with individual routes appearing as part of the baseline transportation system, as we have described. To determine the actual baseline requires the Forest Service to review previous NEPA decisions as well as all Road Management Objectives to determine which roads were constructed, designated, and intended for long-term motorized use. This may entail reviewing all decisions regarding the Forest Service transportation system that have occurred after the development of the 1986 Forest Plan. Upon completion of this review, the Forest Service must include an explanation for specific routes where data discrepancies exist as detailed in our comments herein as to why these routes are included as part of the baseline, including the accompanying NEPA decision or Road Management Objective that shows these roads were constructed and intended for long-term motor vehicle use. The Forest Service must provide a rationale as to why it is proposing to designate this road for long-term public motor vehicle use when, at some point in the past, the Forest Service intended to close this road. If there are routes where this documentation does not exist, the Forest Service must ensure that these routes are removed from the baseline current condition, and do not appear in the No Action Alternative. These routes must receive the requisite environmental analysis before being designated for long-term public motor vehicle use. The analysis should provide a rationale as to why the Forest Service feels they need this route when, at some point in the past, the Forest Service felt it was unneeded. The analysis should also include not only the site specific impacts on forest resources of designating a road for motorized use but also the impacts of the use that occur on this trail.

## **V. Route in San Francisco River**

The Forest Service has proposed to designate a route following, often within, the San Francisco River, located in the Alpine Ranger District (Forest Road 212-1 and 8212) in all alternatives. We adamantly object to this proposal and recommend this route be eliminated from the FEIS and decision. This is not merely our opinion on what use is appropriate for this area, but it is a scientifically based recommendation that will comport with the laws and regulations the Forest Service is duty-bound to follow.

In November 2007, the Center for Biological Diversity and other conservation organizations petitioned the Forest Service to implement interim and permanent protections for this unique and important waterway. Our petition cited the need for immediate action based on the Forest Service's duty to protect the area's outstanding ecological and quiet recreational values from potentially irreparable harm. Closing the San Francisco River to motor vehicles would also help to ensure the agency's compliance with the Endangered Species Act, the Clean Water Act, and the National Forest Management Act. The San Francisco River is a landscape-scale ecological and biological refuge that provides a home for extensive fish and wildlife populations; a free-

flowing, natural river system; extensive riparian habitats; and interconnected watershed and forest habitats.

In our 2007 closure petition, we asked the Forest Service to close the San Francisco River. Specifically, we requested the Forest Service:

- (1) close the San Francisco River and its environs to motorized recreation use from the Apache-Sitgreaves National Forest (ASNF) boundary near Clifton to the Martinez Ranch (11.6 miles);
- (2) maintain the existing ASNF closure from the Martinez Ranch to the Arizona-New Mexico border (10.4 miles);”

Center for Biological Diversity *et al.*, 2007:1. We also asked the Forest Service to, “[d]uring the travel planning process, designate the Frisco-Blue Area closures as permanently closed to motorized recreation use...” and noted that [a]s part of the travel planning process, the Forest Service should prepare a systematic assessment of these important riparian areas to gauge baseline water qualities, the presence and diversity of fish & wildlife, and otherwise assess ecological, biological, and quiet-use recreational values. *Id.* at 2. We again reiterate these requests and ask that the closure petition be made part of the Travel Management project record for the Apache-Sitgreaves National Forest. The closure petition and associated maps are attached as Appendix G.

By protecting the San Francisco River from the negative impacts of motorized uses, the Forest Service ensures compliance with its myriad of legal responsibilities pursuant to, *inter alia*, the National Forest Management Act (“NFMA”), the Endangered Species Act (“ESA”), and the Clean Water Act (“CWA”). In addition to bald eagle, Chiricahua leopard frog, loach minnow, and spikedace, bighorn sheep and pronghorn are known to inhabit the area. Forest Service 2010 TMP DEIS. Key habitat areas within this management area include the San Francisco River, Chase Creek, Apache Creek, the Upper Gila River, Mule Creek, Lower Blue and Pigeon Creek.

We fail to comprehend how ongoing motorized recreational use in these areas is compatible with federal law. The validity of motorized designations in question here is highly suspect given current conditions and the legally-protected ecological, biological, and recreational values that are paramount. Ongoing motorized recreational use, by causing adverse impacts such as soil compaction, bank erosion, and damage to vegetation, will not only harm the ecological, biological, and recreational values of this area, but will also brush up against, if not exceed, legal thresholds provided by federal law. Additionally, as a principle of both ecology and common sense, it is far easier to prevent degradation to riparian areas than to attempt – with little guarantee of success – to repair it.

Prohibiting motorized uses of the San Francisco River will also ensure the Forest Service is in compliance with its own Forest Plan. The Apache-Sitgreaves National Forest is directed to (as restated in the 2010 TMP DEIS at 214):

- Maintain habitat for viable populations of wildlife and fish species, and improve habitat for selected species;

- Improve habitat for listed threatened, endangered, or sensitive species of plants and animals and other species as they become threatened or endangered. Work toward recovery and declassification of species;
- Improve vegetation in riparian areas. This is an emphasis area for the plan. Improvements will be accomplished by reducing or, in some cases, eliminating adverse impacts from grazing, vehicles, and overuse by man;
- Recognize the importance and distinctive value of riparian areas when implementing management activities.
- Give preferential consideration to riparian dependent resources in cases of unsolvable conflicts;
- Manage to maintain or improve riparian areas to satisfactory condition;
- Other resource activities may occur to the extent they support or do not adversely affect riparian dependent resources;
- Management emphasis will be directed at areas with riparian dependent resources in this order of priority:
  - Threatened and endangered species
  - Cold water fisheries
  - Warm water fisheries
  - All other riparian areas

Forest Plan Standards and Guidelines for riparian areas (Management Area 3) (which are listed in the TMP DEIS) include: Plan

- Manage for and maintain at least 80 percent of streambank total linear distance in stable condition;
- Prevent siltation not to exceed 20 percent fines (<855mm) in riffle areas
- Maintain 80 percent of the spawning gravel surface free of inorganic sediment;
- Manage for and maintain at least an 80 percent biotic condition index on all perennial streams.
- Manage for or maintain at least 60 percent of potential habitat capability for loach minnow
- Off road vehicle activities will be managed to prevent interference with the management of other resources, and prevent general environmental degradation (p. 34)
- Existing and additional ORV closures are implemented when one or more of the following situations or areas exist and ORV use is likely to occur that would result in significant adverse affects (p. 34-35):
  - Soil groups having a high sensitivity rating; slope, erosion hazards, and run-off potential;
  - Soils with surface textures of clay, clay loam, and heavy silt loam, or soils where such textures are within 6” to 8” of the surface;
  - Effects of water quality such as increased sediment and turbidity. Also, bacteriological and chemical problems due to heavy concentration of users;
  - Areas which provide essential wildlife water requirements;

- All critical areas as defined in Section 2(b) of the Rare and Endangered Species Act of 1973;
- Areas inhabited by unique wildlife when ORV travel will be detrimental to the well-being of the wildlife group;
- Water courses and wetlands permanently or intermittently wet;
- Areas damaged due to ORV use are closed and restoration projects initiated if funding is available.

Additionally, the Forest Plan Standards and Guidelines state the Forest Service should, if feasible (Forest Service 1987 at 86):

- Relocate or remove roads occurring within riparian areas and should not align roads to pass through the long axis of narrow riparian strips.
- Seasonally or permanently close existing roads, prohibit off-road vehicle use or manage use when conflicts occur with wildlife and soil resource objectives;
- Roads not needed for industry, public, and/or administrative use which are uneconomical to maintain or which are causing significant resource conflicts will be obliterated;

Regarding soils and watershed, the Forest Service should “[e]nsure compliance with Public Law 92-500, Federal Water Pollution Control Act, and amendments including the Clean Water Act. Implement best management practices to prevent water quality degradation. Implement improvement action where water quality degradation does occur, except for special cases where temporary or short-term degradation is occurring from road crossing construction or similar situations (p. 81)...Construct roads to keep sediment out of riparian and aquatic habitats. (p. 104)” Forest Service 2010 TMP DEIS at 216, referring to the 1987 ASNF Forest Plan, page numbers in parentheses.

From the neighboring state of New Mexico, the New Mexico Senate Joint Memorial Report (SJM 40), completed in 2008, notes the serious negative impacts off-road vehicles have on riparian ecosystems. New Mexico Environment Department 2008:51-52. As a part of this study, the New Mexico Department of Game and Fish was asked: “Is ORV activity a threat to fishing and fish habitat in New Mexico? If yes, please describe the threats, including affected species.” NMDGF responded:

“As stated in Appendix 1 (NMDGF 2005) roads (and by inference, trails and their motorized uses) have long been recognized as the primary human-caused source of soil and water disturbances in forested environments. Motorized road and trail crossings through aquatic habitats degrade water quality and increase sediment deposition, reducing habitat quality for aquatic species, including fishes and their aquatic insect food sources. In addition to native cutthroat trout populations, ORV use, depending on magnitude, timing, and other factors, could adversely affect other native fishes such as the state- and federally-listed loach minnow, spikedace, and Gila trout.”<sup>70</sup>

New Mexico Environment Department 2008:51.

If the Forest Service continues to pursue a designated route in the San Francisco riparian area this is likely to lead to protracted litigation, resulting in ongoing harm to the San Francisco riparian area.

The Forest Service must consider the impacts of this proposed route on loach minnow, spikedeace, Gila trout, any other threatened or endangered species, native fish, the spread of invasive species (specifically but not limited to salt cedar), the potential for erosion, soil and water disturbance and contamination, degradation of water quality and habitat for aquatic species. In addition, the Forest Service must disclose and analyze its potential liability for designating a route that the Forest Service will not be able to maintain, that is inherently dangerous, does not and cannot meet engineering standards, and that must be re-signed at least twice per year when high water flows obliterate any signage that is put in place.

We request the Wildland CPR's best management practices (BMPs) be used for this planning process, specifically as it relates to this particular route:

#### **1.1.1 Planning and Decision-Making BMPs for Forest Soils**

- Locate routes a minimum distance (as listed below) from waterbodies and wetlands:<sup>6</sup>
  - Fish-bearing streams and lakes – 300 ft.
  - Permanently flowing non-fish-bearing streams – 150 ft.
  - Ponds, reservoirs, and wetlands greater than one acre – 150 ft.
- Do not designate new routes requiring stream crossings and prioritize closure, re-routing or creating bridge crossings for existing routes that have stream crossings.

#### **4.1.1 Planning and Decision-Making BMPs for Special Ecosystems**

- Do not locate routes on cliffs, cliff edges, or along ridges.

#### **4.1.2 Implementation BMPs for Special Areas and Ecosystems**

- Close and restore unauthorized routes in special ecosystems.
- Identify and close where routes are near riparian areas, wetlands, cliff edges, natural caves, alpine habitat, and cultural and historic sites. If closure is not possible, secure the boundaries of these areas and ensure that there is no proliferation of ORVs into these sensitive areas. Increase signage, effectiveness of closures and enforcement at these areas.
- Ensure that bridges and culverts are present and fully functional on routes. Minimize the number of times a route crosses a riparian area.
- Do not allow travel in washes or perennial streambeds.<sup>7</sup> (emphasis added)

### **A. U.S. Fish and Wildlife Service new proposal for more Critical Habitat**

On October 27, 2010, the U.S. Fish and Wildlife Service (USFWS) proposed additional critical habitat designations for loach minnow and spike dace in Arizona and New Mexico.

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<sup>6</sup> These BMPs are based upon Forest Service Riparian Habitat Conservation Areas (RHCA) standards.

<sup>7</sup> Naiman *et al.* 1993, Machtans *et al.* 1996, Burbrink *et al.* 1998, Stevens *et al.* 1977, USDA 1985, Richards 1987, Stevens *et al.* 1995, Stevens *et al.* 2005, Trimble 1997, Meffe and Carroll 1994.

These proposed designations include segments of the Black River, Boneyard and Coyote Creek that are contained entirely within the Apache-Sitgreaves National Forest. USFWS 2010:135, attached as Appendix . Reasons cited for special management or protection include residual effects of past livestock grazing and associated impacts to uplands, riparian vegetation and the stream, and wildfire. *Id.*

Portions of Eagle Creek proposed for designation are also located on the Apache-Sitgreaves National Forest. USFWS 2010:146. Reasons cited for special management or protection include residual impacts from livestock grazing and impacts to uplands, riparian vegetation and the stream, drought, mining activities and road construction and maintenance. *Id.*

Portions of the San Francisco River proposed for designation include 112.3 miles of the river extending from the confluence with the Gila River in Greenlee County, Arizona upstream to the confluence with the Tularosa River in Catron County, New Mexico. USFWS 2010:147. This stretch of the river was known to be occupied by spokedace at listing and reintroduction occurred in 2008. *Id.* This stretch of the river was known to be occupied by loach minnow at listing and is currently occupied by loach minnow. *Id.*, citing NMDGF 2008; Propst *et al.*, 2009 pp.5-6. The San Francisco River is perennial throughout its length, contains suitable habitat for all life stages of spokedace, has an appropriate food base, perennial flows have no or low levels of pollutants, and has an appropriate hydrologic regime to maintain suitable habitat characteristics. *Id.* at 147-148 (emphasis added). It is one of the larger intact streams remaining in the species' range and represents one of the largest remaining rivers in the species' historical ranges, was historically occupied, has reintroduced populations of spokedace, is currently occupied by loach minnow, supports several Physical and Biological Features (PBFs) for spokedace, and is **essential to the conservation of spokedace and loach minnow**. *Id.* at 148. Reasons cited for special management or protection include livestock grazing and impacts to uplands, riparian vegetation and the stream, drought, water diversions and road construction and maintenance. *Id.*

It is very important to note that the proposed motorized route, Forest Road 212-1 and 8212, are located in stretches of the San Francisco River that are *already designated as critical habitat for both loach minnow and spokedace*. USFWS 2007. As discussed above, all alternatives in this DEIS include this route. Therefore, prior to designation of any route (which would be unwise to say the least), consultation with the Fish and Wildlife Service under section 7(a)(2) of the Endangered Species Act to ensure designation of the route is not likely to jeopardize the species or destroy or adversely modify critical habitat is absolutely required. Destruction or adverse modification is determined on the basis of whether, with implementation of the proposed federal action, the affected critical habitat would remain functional or retain those PBFs that relate to the ability of the area to periodically support the species to serve its intended conservation role for the species. *Id.* at 165. In addition, the proposed action must not be likely to jeopardize the continued existence of the species. *Id.*

In the proposal to designate additional critical habitat, the USFWS identifies actions that would adversely modify critical habitat:

- 1) actions that could affect the water depth, velocity, and flow pattern;
- 2) actions that would significantly alter the water chemistry of the active channel;
- 3) actions that would significantly increase sediment deposition within the stream channel;

- 4) actions that result in the introduction, spread, or augmentation of nonnative aquatic species;
- 5) actions that would significantly alter channel morphology.

USFWS 2010:170-171. Off-road vehicle use is specifically cited as an activity that could adversely modify critical habitat (*Id.*) and ORV use has been demonstrated to alter flow regimes, alter water chemistry, increase sediment deposition, and significantly alter channel morphology. Forest Service 2010: Fisheries Specialist Report for TMP DEIS at 20. Roads along the San Francisco River “have had considerable negative impacts to the fish species and populations within these drainages, along with the associated riparian habitat and corridors.” Forest Service 2010: Fisheries Specialist Report for TMP DEIS at 20. Within loach minnow and spikedace habitat, there are 1,593 stream crossings, 1,017 of which are currently open to motorized travel. In the San Francisco River, there are at least 26 stream crossings within just 8.7 miles.

A 2003 USFWS Biological Opinion referred to in the 2010 USFWS proposal states that, for the Blue River, “[r]oads and trails along the river destroyed riparian vegetation, eroded terraces, destabilized streambanks, and channeled floodwaters into new areas thus eroding new channels or widening the existing channel...Numerous low-water ford crossings exist in the upper Blue River contributing to localized destabilization...[and] unauthorized off road vehicle use continues to occur in the river bottom.” USFWS 2010 at 63. For the San Francisco River, the same Biological Opinion states that “[p]resent uses of the San Francisco River watershed and valley bottom within the action area continue to contribute to the deteriorated condition of the river, although at a level reduced from that of the late 1800s to early 1900s. Road, and grazing activities within the watershed continue to contribute to erosion, vegetation change, and alteration of the hydrologic regime. *Id.*

### **B. Apache-Sitgreaves TMP DEIS Fisheries Specialist Report**

The Forest Service’s Fisheries Specialist Report for the Apache-Sitgreaves TMP DEIS states “[r]oads and their drainage crossings within the species action areas are important indicators of the potential extent of direct, indirect, and cumulative impacts to aquatic and riparian habitat when they occur within the watersheds where fish species or their habitat is present.” Forest Service 2010: Fisheries Specialist Report for TMP DEIS at 21. Unfortunately, “[n]o site specific information regarding conditions and potential impacts to fish and their habitats exist for the existing crossings was available for the analysis other than location.” *Id.* “No data or information are available that could either quantitatively or qualitatively characterize or describe the existing impacts from motorized cross-country travel to threatened, endangered, candidate, or sensitive fish species or their habitats. Motorized cross-country use is most likely to be disparately concentrated within riparian areas and all areas where water is present.” Forest Service 2010: Fisheries Specialist Report for TMP DEIS at 23. This lack of site specific information emphasizes the need for the USFWS to consult on this project.

### **C. Wild and Scenic River Values**

The San Francisco River is an eligible wild and scenic river (for wild and recreational classifications) on the Apache-Sitgreaves National Forests. Forest Service 2010 DEIS at 56.



The outstandingly remarkable values for which the river is eligible on the Clifton Ranger District include scenic, recreation, fish, wildlife, and vegetation/ecology. Designating a motorized route through the heart of this river and publicizing this route on the Motor Vehicle Use Map (MVUM) will certainly increase motorized uses of this area and further degrade the values that make this river eligible for Wild and Scenic designation. This is contrary to the statement in the DEIS that “[u]nder all alternatives, there would be no impact to the outstandingly remarkable values of eligible rivers” as we have outlined above.

It also violates Forest Service guidance. The Forest Service Handbook’s “Interim Management of Eligible or Suitable Rivers” section describes the confines of site-specific projects and activities that land managers may allow within eligible rivers segments. Specifically, such projects and activities must preserve the free-flowing nature of the river, protect the identified outstandingly remarkable values, and maintain the inventoried classification (e.g., wild, scenic, or recreational).

To the extent the Forest Service is authorized by statute, a Responsible Official may authorize site-specific projects and activities on NFS lands within river corridors eligible or suitable *only* where the project and activities are consistent with all of the following:

1. The free-flowing character of the identified river is not modified by the construction or development of stream impoundments, diversions, or other water resources projects.
2. Outstandingly remarkable values of the identified river area are protected.
- ...
4. For all Forest Service identified study rivers, classification must be maintained as inventoried unless a suitability study (decision) is completed that recommends management at a less restrictive classification (such as from wild to scenic or scenic to recreational).

FSH 1909.12, ch. 80, sec. 82.5 (emphasis added).

The Forest Service Handbook indicates the agency must employ certain management guidelines for Section 5(d)(1) rivers until a “finding of ineligibility or nonsuitability” has been made. FSH 1909.12, ch. 80, sec. 82.51; *see also* Technical Report at 30. The chart below includes the interim management guidelines relevant to the TMP process.

**Table 2: Interim Management Guidelines for Wild and Scenic Rivers**

<b>Proposed Activity</b>	<b>Interim Management Guideline</b>		
<i>Transportation</i>	Wild	Scenic	Recreational

<i>System</i>	New roads generally not compatible; new trail construction should generally be designed for nonmotorized uses; limited motorized uses compatible with identified values and unobtrusive trail bridges may be allowed; no new airfields	New roads and railroads permitted to parallel river for short segments or bridge river if such protection fully protects river values and free flow; bridge crossings and river access are allowed; new trail construction or airfields must be compatible with and fully protect identified values	New roads and railroads permitted to parallel river if such construction fully protects river values and free flow; bridge crossings and river access are allowed; new trail construction or airfields must be compatible with and fully protect identified values
<i>Motorized Travel</i>	Wild		Scenic/Recreational
	Motorized travel on land or water may be permitted, but is generally not compatible with wild classification.	Motorized travel on land or water may be permitted, prohibited, or restricted to protect the river values.	

***Recommendation***

The Forest Service has identified no rational reason for allowing motorized access in the San Francisco River and we have outlined federal law that requires closing this area to motorized use. **Therefore, the Forest Service is duty bound and legally obligated to close the San Francisco River to all motorized uses through the Travel Management decision, if not sooner through an emergency closure order in response to the Center for Biological Diversity’s 2007 closure petition.**

**VI. Inclusion of Unauthorized/User-create Routes is Inappropriate**

There is no alternative that excludes user created routes from designation. Inclusion of such routes rewards illegal behavior and will not facilitate future ease of enforcement. There should have been at least one alternative analyzed that did not include the designation of unauthorized routes.

The Travel Management Rule explains that “[u]ser created routes were developed without agency authorization, environmental analysis, or public involvement and do not have the same status as National Forest System roads and trails included in the forest transportation system.” 70 Fed. Reg. 68268. The environmental impacts of these routes have never been assessed. The need for environmental review for user-created roads is particularly important because these

routes have a high potential for environmental damage given that they have not been designed or maintained to avoid such impacts. It is undisputed that the Forest Service cannot afford to maintain the motorized routes that are currently designated, therefore adding more miles of route will confound this problem and make it less likely that these routes will be maintained. *See generally* EPA 2008 for additional information on how lack of maintenance impacts, specifically p. 83.

The Travel Analysis Report (TAP) states that a complete inventory of user created routes has not been completed but that hundreds of miles of user-created routes exist on the Apache-Sitgreaves National Forests. Forest Service 2008 TAP. Many user-created routes are simply “short cuts” between existing authorized roads. These routes may have caused considerable, but woefully unmitigated, adverse impacts, and do not adhere to any safety, design, or engineering standards (Executive Order 11644, § 9, as amended). Designation of user-created routes which are causing adverse impacts rewards off-road vehicle users who have wantonly created them without consideration to the impacts they cause.

We note here that, “[i]n order to be successful and actually influence behavior, OHV users must be motivated to behave properly... [by] increasing enforcement, and especially increasing the consequences for breaking the law, through mechanisms like vehicle confiscations, increased fines, and closing areas to all motorized users when motorized trespass occurs.” (Kiely and Kassar 2007).

Given the current state of unmanaged off-road vehicle use, resource damage, lack of funding for road maintenance and the current maintenance backlog, the Forest Service must take action to regain control of motorized recreation. The designation of user-created routes as legitimate, legal routes in the MVUM undermines the Forest Service’s authority to enforce and manage the transportation system. Inclusion of such routes sends the wrong message to off-road vehicle users about the validity of routes they create illegally. It is not acceptable to incorporate user-created routes or propose the creation of new routes unless an identifiable need is demonstrated or these routes are being designated to relocate a route causing environmental harm.

The Forest Service states, in the DEIS for this project at page 47, that “most unauthorized routes are the result of repeated use by cross-country drivers [and] have been established by people who drive off system routes for firewood gathering, dispersed camping...or to retrieve downed big game animals. All of these activities will continue in the Preferred Alternative and nearly all action alternatives. Therefore, the proliferation of user-created routes will also continue. The Forest Service goes on to acknowledge that “[u]nauthorized routes are not designed or constructed to standards for safety and avoidance of resource degradation and often result in measureable impacts to resources, including soil, watershed, vegetation, wildlife, and primitive values. Some efforts have been made to close these routes, especially where excessive resource damage is occurring. Closed routes, however, continue to be accessed with motor vehicles despite efforts to close these roads.” Forest Service 2010 DEIS at 47.

These statements apparently contradict information in the DEIS at page 30 that there will be “[i]mproved safety by maintaining unauthorized roads and trails added to the system” for all action alternatives. These statements also contradict the assumption that motorized big game

retrieval and motorized dispersed camping will not result in damage to natural resources or the creation of new, unauthorized routes. Forest Service DEIS at 5.

Before user-created routes can be added to the designated system, the Forest Service must ensure they are constructed according to engineering standards to ensure these routes are in compliance with road Best Management Practices and prevent resource degradation. In addition, according to a 2006 Forest Service memo from the Washington Office (*See Appendix A*):

To add a road to the transportation system, all of the following are required:

1. The road must be identified by the responsible official as part of the “minimum road system.” Such identification must be advised by a science-based roads analysis or travel analysis. (36 CFR 212.5b)
2. Adding the road to the System must be documented in a decision notice prepared in accordance with applicable NEPA procedures in the NEPA Procedures Handbook. (FSH 1909.15)
3. A road management objective must be prepared and approved by the responsible official. (FSM 7712.5).
4. ASC must make an appropriate capitalization determination as follows:
  - a. ...
  - b. When existing roads are added to the system, notify ASC of the roads to be added. Do not provide engineer’s estimates of the value of such roads. (Factors involved in establishing value, if any, of roads acquired as part of land transactions, roads created by users in the National Forest, and roads abandoned by public road authorities are generally not of an engineering nature.)
5. Concurrently with the ASC determination, the Infra Travel Routes – Roads module must be updated to reflect these changes. The following fields must be populated as follows for a road to be considered part of the Transportation System: Jurisdiction = FS, Route Status = Existing, System = NFSR. In addition, since an approved RMO must exist per step #3 above, units are strongly encouraged to document the RMO in the Roads RMO Module, as soon as the Module is available.

In addition, a recent decision by the Region 3 Appeal Deciding Officer makes clear that the Forest Service cannot make user-created routes permanent without first conducting site-specific environmental review: “Decisions to add roads to the forest transportation system must be informed by travel analysis conducted at an appropriate scale, *as well as appropriate site-specific environmental analysis and public involvement.*” Region 3 Decision of Appeal Deciding Officer in response to Appeal by Center for biological Diversity et al., #10-03-00-0049-A215, October 6, 2010, at page 6, emphasis added. *See* FSM 7703.12, referenced in section IV(B) above.

Unfortunately, the analysis done for this DEIS does not treat user-created routes as new routes. Instead, because these routes exist on the ground, the impacts of these routes are dismissed:

- “With the exception of 2 miles of motorized trail, the routes being added are in existence and would not change the current scenic quality.” Scenery Specialist Report at 11.

- “These particular proposals do not entail all-new construction as an unauthorized route already exists. All routes are currently existing as part of the Forest’s transportation system or as unauthorized routes.” Vegetation Specialist Report at 16.
- “Direct effects of the existing road network are not analyzed as only net changes from existing conditions are addressed[,]” and “No new road construction occurs under any alternative.” Air Quality Specialist Report at 11.
- “No ground disturbing actions are associated, authorized, or evaluated with any of the proposed actions with any of the alternatives” (with one exception) and the proposed actions are “spatially discontinuous across the ASNFs and are too numerous to analyze site specifically...Therefore, the meaningful comparison of alternatives is limited to their changes relative to the existing conditions for the transportation system and cross-country travel. Similarly, impacts to fish species cannot be quantified relative to the existing condition or any of the alternatives; this also limits this analysis to relative comparisons of potential impacts associated with proposed actions.” Fisheries Specialist Report at 18.

At the same time the Forests recognize that the “vast majority of user-created routes were not designed or constructed to standards as required by Forest Service policy for safety and avoidance of resource degradation. Thus, because user-created routes have been constructed and used without proper planning and engineering criteria, they often result in measureable degradation of resources including soil, watershed, vegetation, wildlife, and primitive values.” Recreation Specialist Report at 27. It is arbitrary and capricious for the Forest Service to at once recognize the harmful impacts of user-created routes and dismiss the impacts of such routes because the impacts have been ongoing for a number of years though never analyzed in any NEPA process.

The one-time costs associated with implementing action alternatives that include user-created routes range from \$14,000 to \$70,000. Forest Service 2010 DEIS at 29. The Forest Service has not identified sources of funding for this implementation.

The Forest Service must provide documentation for each user-created route proposed to be added to the designated system that specifically addresses each requirement above. Those user created routes proposed for designation in this project must be properly analyzed in a supplemental DEIS for this project, but we recommend that all user-created routes be **excluded** from the designated system. Notably, the No Action Alternative does not include any user-created routes, making exclusion of all user-created routes in the final decision possible. Alternatively, withdraw the current DEIS and issue another DEIS or supplementary DEIS for public review and comment that includes alternatives that exclude unauthorized routes and includes site-specific analysis of user-created routes that may be present in other alternatives. In all cases, we recommend the Forests develop a monitoring and enforcement protocol.

## VII. Motorized Trails

There is a significant increase in the number of motorized trails in all alternatives except Alternative C. We recommend that the Forest Service select the motorized trails provision of Alternative C.

Of particular concern is the fact that the Forest Service plans to convert open system roads into motorized trails. The conversion of motorized roads to motorized trails result in 1) less frequent maintenance and lower standards for trails than roads which could cause increased resource degradation; 2) underestimated wildlife and watershed impacts from motorized uses if trails are excluded from rout density calculations; and 3) the false impression that maintenance backlogs are being reduced if trails are excluded from maintenance backlog calculation.

An additional concern regarding costs is the initial start up or implementation costs associated with the proposed motorized trails. All action alternatives will require the Forest Service to provide tens of thousands of dollars to add unauthorized routes to the motorized system. In light of the maintenance backlog and lack of funding available for this use, we question the rationale used to include a motorized trail system in all action alternatives, and would seriously question any Forest Service decision that would result in between \$93,000 and \$136,000 in maintenance costs, which is an increase of between \$22,000 and \$65,700 for the addition of less than 150 miles of motorized trails. Forest Service 2010 DEIS at 29.

Motorized recreational use of the forest is not within the purpose and need for this project. We recommend that only those motorized trails that have been identified as necessary for the “safe and efficient transportation system for public use” be designated for public use. Forest Service DEIS at 14.

## **VIII. Cross-country Areas**

We have noted a significant change from the proposed action and modified proposed action regarding the use of areas designated for motorized uses. In the proposed action more than 5,900 acres were planned as areas open to cross-country motorized use for recreational purposes. We were particularly concerned about an area that would have negatively impacted Weimer Canyon, a sensitive, forested tributary to Chevelon Canyon leading directly into Chevelon Lake.

We strongly support the change in the preferred alternative, which does not include such excessive designation of motorized areas for the purpose of cross-country travel. The purpose and need statement for this project does not include a need to provide recreational motorized cross-country travel experiences for forest visitors and therefore the Forest Service is under no obligation to provide the 469 acres of areas on the Black Mesa and Lakeside Ranger Districts in the preferred alternative and Alternative D. We recommend the Forest Service chose to protect these areas from the damage of continued cross-country motorized uses by not including the designation of the 469 acres for cross-country motorized uses.

## **IX. Exceptions to Ban on Cross-country Travel**

For all areas open to motorized cross country travel for game retrieval or dispersed camping, the Forest Service should apply the minimization criteria from the Executive Orders, which require that the designation of all areas subject to ORV uses be based upon the protection of the resources of the public lands, promotion of the safety of all users of those lands, and minimization of conflicts among the various uses of those lands. Executive Order 11644 as amended, § 3(a).

Fundamentally, NEPA decision-making requires the Forest Service to consider the direct, indirect and cumulative impacts of their actions. 42 U.S.C. § 4332(C). The Forest Service cannot simply allow an exception for motorized big game retrieval and dispersed camping, but rather, must provide reasoned and informed justification for that decision. In this justification, the Forest Service must take a hard look at the direct, indirect, and, in particular, the "cumulative impacts" of the exception. A cumulative impact is "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." 40 C.F.R. § 1508.7. Comparatively, direct impacts are "caused by the action at the same time and place," and indirect impacts are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." 40 C.F.R. § 1508.8.

The Travel Management Rule allows for only limited exceptions to the ban on cross-country travel, exceptions which are to be applied *sparingly* along certain routes. National guidance on the issue includes:

***Travel Management Rule, 36 C.F.R. § 212.51(b):***

*Motor vehicle use for dispersed camping or big game retrieval.* In designating routes, the responsible official may include in the designation the limited use of motor vehicles within a specified distance of *certain* forest roads or trails where motor vehicle use is allowed, and if appropriate within specified time periods, solely for the purposes of dispersed camping or retrieval of a downed big game animal by an individual who has legally taken that animal.

***Preamble for the TMR, 70 Fed. Reg. 68,264, 68,285 (Nov. 9, 2005):***

The Department expects the Forest Service to apply this provision *sparingly*, on a local or State-wide basis, to avoid undermining the purposes of the final rule and to promote consistency in implementation. Provision for cross-country travel for big game retrieval and dispersed camping will be at the discretion of the responsible official.

***Letter from Dale Bosworth, Chief, U.S. Forest Service, to Regional Foresters, Station Directors, Area Director, IITF Director, Deputy Chiefs and WO Staff (June 8, 2006)***

**Dispersed Camping and Game Retrieval (36 CFR 212.51(b))**

The responsible official may include in the designation the limited use of motor vehicles within a specified distance of certain designated routes solely for the purposes of dispersed camping or big game retrieval. *Such designations represent site-specific decisions associated with specific roads and trails or road or trail segments, rather than a blanket exception to the rule.* Designations under 36 CFR 212.51(b) will be applied *sparingly* to avoid undermining the purposes of the rule and to promote consistency in implementation. Regional foresters will coordinate designations within states and between adjoining national forests to promote consistency.

***Forest Service Manual 7703.11(4):***

Designation of roads and trails may include the *limited* use of motor vehicles within a specified distance of *certain* forest roads and trails solely for the purposes of big game retrieval or dispersed camping. Apply the provision for big game retrieval and dispersed camping *sparingly, after conducting travel analysis and appropriate site-specific environmental analysis and public involvement.*

***Forest Service Manual 7715.74 – Motor Vehicle Use for Big Game Retrieval and Dispersed Camping***

1. The responsible official may include in a designation the *limited* use of motor vehicles within a specified distance of *certain* forest roads and forest trails where motor vehicle use is allowed, and if appropriate within specified time periods, solely for the purposes of dispersed camping or retrieval of a downed big game animal by an individual who has legally taken that animal (big game retrieval).
2. The authority in FSM 7715.74, paragraph 1, should be used *sparingly* to avoid undermining the purposes of the travel management rule and to promote consistency in its implementation.
3. To promote consistency, the Regional Forester should coordinate designations pursuant to FSM 7715.74, paragraph 1, within states and among adjoining administrative units.
4. Prior to including in a designation the limited use of motor vehicles within a specified distance of state and county roads for dispersed camping and big game retrieval, the responsible official shall obtain written concurrence from the public road authority with jurisdiction over those routes.
5. Consider designating routes, including existing terminal facilities (FSM 7716.1), to dispersed camping sites, instead of authorizing off-route motor vehicle use.

Further, regional guidance states that forest supervisors should consider “providing for cross-country travel for the purpose of big game retrieval where it would play an important role in meeting State big game harvest or management objectives.”

**B. Motorized Big Game Retrieval (MBGR)**

In the proposed action, exceptions to the ban on cross-country travel for MBGR were planned only for elk. We are extremely dismayed to see that for nearly all Alternatives in the DEIS the Forest Service plans to allow MBGR for up to one mile from all open routes for bear, deer and elk.

We do not support exceptions to the ban on cross-country travel for big game retrieval for any distance or length of time except in the case for disabled hunters. The MBGR exception has the potential to open up relatively secure habitat if hunters do not have to pack their game out by



non-motorized means, has the potential to undermine the purpose of the TMR, and is not consistent with the TMR. Prohibitions on cross-country travel do not limit big game hunting, but simply imply that successful hunters will have to resort to traditional methods of game retrieval.

There is no information provided in the DEIS that cross-country travel is necessary to meet the state's big game harvest and management objectives. The White Paper from Arizona Game and Fish Department (AGFD) released in 2009 referred to in the DEIS at page 48 details harvest information and statistics for elk only, there is no information provided on deer or bear. The Forest Service cites a national downward trend in participation by hunters with no information on how this relates to Arizona, the Apache-Sitgreaves National Forest or the use of MBGR. Forest Service 2010 TMP DEIS at 48.

The AGFD "asserts that MBGR is used as a tool to increase hunter success" but fails to mention research that indicates MBGR negatively impacts hunter success and experience. As we mentioned in our scoping comments, an AGFD 2006 statewide survey of active hunters indicated that disruption caused by ORVs was among the top four "barriers to participating in hunting" in Arizona. In fact 54% of the respondents indicated that disruption caused by ORV use was a significant barrier to their participation in hunting. AGFD 2005.

In our scoping comments we noted that a local hunter expressed his frustration with ORV use in an Open Letter to Duane Shroufe, Director of AGFD, published in the *White Mountain Independent* newspaper December 28, 2007. In this open letter, a hunter explains that after spending hours scouting a hunting location, sleeping in his car, then rising before sunrise to walk to the favored scouting location, an ATV comes "screaming along" at 7am, followed by two more ATVs at 8am. The following day he finds another location to hunt which is again ruined by ATVs "roaring by." This hunter abandoned his hunting opportunity "because of all the ATV traffic." This Open Letter is attached as Appendix EE.

The DEIS for this project also notes that the "increase in OHV use during the hunting season has resulted in conflicts between hunters with differing philosophies (e.g. motorized vs. non-motorized access and game retrieval)," yet outside of the backcountry (Wilderness and other areas closed to all motorized uses), a hunter who does not participate in MBGR will have no areas in which to hunt. This will result in a negative impact to hunters who prefer to hunt within a 1-mile proximity of roads (which includes nearly the entire forest) but without the use of MBGR methods. This group of hunters is likely to include older or disabled hunters who prefer traditional methods of game retrieval and could result in disparate impacts to these groups of individuals.

Although AGFD maintains "further restrictions on motorized game retrieval will predictably lower hunt success" (AGFD 2009), this position is in fact contradicted by earlier research findings demonstrating that road closures actually increase hunting opportunities and hunter satisfaction. Rowland *et al.* 2005. In addition, Gratson *et al.* (2000) found hunter success almost doubled when open road density is reduced from 4.25 mi/mi<sup>2</sup> to about 1.0 mi/mi<sup>2</sup> (2.54 km/km<sup>2</sup> to 0.56 km/km<sup>2</sup>).

Additionally, AGFD admits that the largest barrier to hunting success is a lack of quality hunters, which will NOT be remedied by allowing more hunters into the woods on ORVs. In fact, the AGFD relies on general assumptions, unsupported by research or data, that juveniles, females, and hunters age 50 and over “would require substantial assistance to retrieve a downed big game animal” and posits that “>50% of the hunter population would probably be challenged to retrieve an elk without assistance.” AGFD 2009 at page 10. This notion is reiterated in the Recreation Specialist Report for this DEIS at page 19. Even if this were true (which we cannot verify or refute because AGFD provides no documentation for this assertion), that does not therefore indicate that allowing motorized assistance is the solution to this perceived problem.

The AGFD indicates that allowing MBGR will prevent meat spoilage for deer and elk and states that temperatures in the fall are unpredictable, with 70 degree temperatures into the late fall. AGFD 2009 at page 11. The ASNF should recognize and consider that average monthly temperatures in Arizona and New Mexico differ by an average of less than 7 degrees Fahrenheit<sup>8</sup> and there have been no reported concerns with meat spoilage from the New Mexico Game and Fish Department’s (NMGFD). Perhaps the warmest of the Arizona National Forests, the Coronado National Forest, does not allow MBGR for deer or any other game species and has not allowed cross-country motorized travel for this purpose (or any others) for many years. The Coronado National Forest recently scoped a proposed action for the Santa Catalina Ranger District and the Nogales Ranger District and had the opportunity to allow the use of MBGR on the forest, yet the issue was not considered a problem on this forest. If the AGFD is actually concerned about meat spoilage, they would more appropriately recommend that only when temperatures are high enough to result in meat spoilage should hunters be allowed to use MBGR.

Rather than follow the urging of the AGFD, which advocated for motorized big game retrieval on all forests in Arizona for up to three miles for everything from turkey to elk (clearly an unreasonable and unsupportable position), we urge the Forest Service to consider the NMGFD position that an exception for motorized game retrieval is unnecessary. NMGFD recognized “that any OHV use off designated roads and trails establishes tracks that stimulate additional unintended use and subsequent habitat degradation, thereby compromising effective control.” NMGFD 2006, attached as Appendix J. In addition, NMGFD “encourages USFS to consider hunting-related OHV activities similar to any other OHV recreational activity that occurs on USFS lands and apply appropriate restrictions equally.” NMGFD 2006.

An exception to the ban on cross country travel for big game retrieval will create enforcement problems and incite more conflict and resource damage because many dispersed camp sites and user-created routes receive use only during hunting season. Experiences on forests beyond Region 3 are illustrative. In the Grand Mesa National Forest in Colorado, a provision allowing cross-country travel for MBGR was discontinued after a determination that the privilege of MBGR had been “systematically abused.” Notification to Discontinue Downed Game Retrieval off-route on the Grand Mesa National Forest, February 2005, attached as Appendix K. The GMNF discovered that under the guise of game retrieval, travel into areas outside game retrieval areas was common; law enforcement challenges and disruption of the hunting experience of others was extensive; travel occurred outside the designated time; additional illegal routes were

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<sup>8</sup> NOAA, United States Climate, Average Mean Temperature Index by Month, Climatology by state based on climate division data: 1971-2000. Available at: <http://www.cdc.noaa.gov/USclimate/tmp.state.19712000.climo>, accessed November 26, 2010.

created, and new routes “continue to be pioneered into areas;” and unacceptable environmental effects resulted with the creation of additional illegal routes in the forest. The GMNF also found that the privilege imposed “an unreasonable burden on law enforcement personnel to demonstrate proof that a rider is actually traveling to a downed animal.” *Id.* at 1-2.

Many wildlife species, including mule deer and elk, avoid roads (*see* Thiessen 1976; Rowland et al. 2005; Rost and Bailey 1979; Berry and Overly 1976; Lyon 1979, 1983; Yarmaloy 1988) and prefer roadless areas, which is well documented in the literature (Strittholt and Dellasalla 2001). If the Forest Service allows MBGR into areas where elk and deer have concentrated because of a lack of roads, the intrusion into these areas by motorized vehicles is likely to push elk further away, decreasing hunter success. MBGR in prime big game habitat will increase motorized access to comparatively secure areas, to the detriment of the big game species as well as other wildlife, negatively impacting species diversity contrary to National Forest Management Act (NFMA) and where endangered species habitat is located, requiring analysis of each area where MBGR is permitted under § 7 of the Endangered Species Act by the Forest Service.

It seems logical that quality wildlife habitat would be a positive incentive for hunters to go hunting. In the NFMA, at 16 USC 1531, Congress declared that wildlife resources of the nation make a material contribution to the health, recreation, employment and well-being of the nation’s citizens; that citizens, particularly those in urban areas, have insufficient opportunity to participate in recreational opportunities designed to foster human interaction with wildlife, such as hunting. Each state is encouraged under NFMA to develop a plan for the conservation of fish and wildlife. Gratson *et al.* (2000) found hunter success almost doubled when open road density is reduced from 4.25 mi/mi<sup>2</sup> to about 1.0 mi/mi<sup>2</sup> (2.54 km/km<sup>2</sup> to 0.56 km/km<sup>2</sup>). We encourage the Forest Service to reduce route densities across the landscape and especially in key big game habitat to facilitate hunter success and manage wild big game populations, in addition to banning MBGR.

Only after the Forest Service considers the cumulative impacts of allowing cross-country MBGR, and considers action alternatives which would affirmatively prohibit MBGR, can the Forest Service properly determine whether MBGR should or should not be allowed. This information has not been provided in the DEIS. In any event, because MBGR appears unnecessary, except perhaps in the case of disabled hunters, we request that the Forest Service prohibit MBGR.

We have additional questions regarding the plan to apply the MBGR management strategy adopted by forests with adjacent game units:

1. If MBGR were not allowed, how far would hunters have to travel using non-motorized means to retrieve downed game outside of wilderness areas?
2. How much of a positive impact would a ban on MBGR have on other hunters?<sup>9</sup>

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<sup>9</sup> We note that the DEIS, at page 39, includes the statement that: “Some hunters would be discouraged from hunting without provisions for motorized big game retrieval; others who favor nonmotorized hunting experiences could be encouraged to apply for hunting tags in areas where motorized vehicles are limited to the designated system.” However, this conclusory statement is not supported by data or research, nor is it quantitative. Therefore, it is insufficient for NEPA analysis.

3. How many hunters in the Apache-Sitgreaves National Forest actually participate in non-motorized game retrieval and what is the source of this quantification?
4. How many hunters in the Apache-Sitgreaves National Forest participate in non-motorized game retrieval?
5. How does allowing MBGR prevent game meat spoilage? Is there a significant problem with meat spoilage when hunters pack out the meat using traditional, nonmotorized methods? (i.e., how long does retrieval take using traditional methods vs. MBGR given that most downed game will be within ½ mile of an open route?)
6. How many hunters who prefer traditional game retrieval would be less likely to apply for elk tags?
7. What did hunters do to prevent meat spoilage before the advent of MBGR?
8. What impact will MBGR have on the continued spread of non-native invasive noxious plants forest-wide?
9. What impact will MBGR have on the Mexican gray wolf, especially in light of recent illegal killing of wolves in the forest? (See the section on Mexican gray wolves below for more information on this issue.)

While hunting is a legitimate use of Forest Service lands, an exception to the ban on cross-country travel for MBGR would create enforcement problems and will likely create more conflict and resource damage because many dispersed camp sites and user-created routes receive use only during hunting season. ***Providing an exception such as that proposed most alternatives in the DEIS threatens to effectively negate the general rule prohibiting cross-country travel.***

Allowing MBGR for up to one mile off either side of over 2,800 miles of road in Alternative B would open 1.2 million acres of land to cross-country uses and the continued spread of exotic species of plants, among other serious negative impacts. All Forest Service land that would be impacted must be evaluated using the minimization criteria from the Executive Orders, which results in the need to analyze nearly *all* Forest Service land in the Apache-Sitgreaves National Forest outside of Wilderness areas for impacts from ORVs.

There are absolutely no data or evidence to support the proposed MBGR strategy and this must be abandoned as a management approach. There is no especially onerous burden on a hunter who will rarely, if ever, be more than one mile from an open road on the Apache-Sitgreaves National Forest. The only alternative that prohibits MBGR entirely would result in no change in activities related to jobs and economics, would serve to best protect the landscape from the devastating effects of nearly unlimited (spatially) motorized access, and would benefit the majority of hunters. This alternative is the *only* alternative that would reduce the potential to spread noxious weeds both on and off Forest Service lands. Forest Service 2010 TMP DEIS at 82.

### **C. Motorized Dispersed Camping**

Dispersed camping, whether in a designated area or wherever a user desires to camp, results in damage to natural resources. *See* Cole 1995. This damage may be lessened by designating and clearly delineating dispersed camping areas. The Prescott National Forest web site includes the following statement regarding dispersed camping:

Dispersed camping has increased throughout the Prescott wildland-urban interface area in the past several years. In many areas, this has caused resource impacts such as accelerated soil erosion, damage or loss of vegetation, displaced wildlife, increased fire risk, and accumulation of trash and human waste.

To help prevent unacceptable resource damage from dispersed camping, Forest Service resource managers have designated the sites shown on the map for dispersed camping. Camping and campfires are allowed only at these sites, and in developed campgrounds, within the Prescott Basin. However, campfires are not allowed in these designated dispersed camp sites when fire restrictions are in effect.”

(<http://www.fs.fed.us/r3/prescott/recreation/camping-day-use-ohv/prescott-basin-dispersed-camping.shtml>, accessed on 12/05/2010):

We strongly recommend that the Forest Service consider a similar policy. User-created spur routes to dispersed camping sites should be considered new roads and should be approved only after compliance with all applicable regulations. Any dispersed camping areas should be clearly delineated on the ground, preferably with fencing.

Designating fixed distances from open routes in which motorized cross-country travel is allowed for dispersed camping is difficult to enforce, maintain, and if users are allowed to drive off route to find a camping spot, will very likely result in increased user-created routes within the camping corridor. *See* attached PowerPoint: Motor Vehicle Assisted Dispersed Camping in National Forest, Southern Rockies Conservation Alliance, especially noting slides 9, 10 and 11. This is attached as Appendix L. We have also attached Appendix M, a satellite image of a dispersed camping corridor in the Coronado National Forest in southern Arizona. This area is currently closed to motorized cross-country travel except in a 300 foot camping corridor. The result of an inability to manage this corridor has been the development of user-created routes that are approximately 900 feet from the designated route as well as a user-created “race track.” These new, user-created routes have damaged archeological sites in this area. *See* Forest Service 2010, Soil, Water and Air Specialist Report. It is logical to anticipate that similar problems will result in the Apache-Sitgreaves National Forests upon implementation of a dispersed motorized camping corridor regime. Not only is it logical to make this assumption, the Apache-Sitgreaves National Forests have recognized this fact in the Scenery Specialist Report (page 9) for this DEIS:

“Dispersed campsites often are near water features or within riparian corridors which are considered sensitive vegetation communities on the Forests. In riparian corridors and wetlands, any ground disturbance, such as roads and motorized trails, generally leaves long-lasting scars on the land and could alter the hydrology of that wetland complex (see vegetation analysis). The lack of designated routes often leads to the creation of multiple tracks once the original route becomes undesirable or unusable (due to rutting, wet conditions, etc). In areas with fragile soils, the potential for vegetation removal and bare ground is likely. Both designated and any unauthorized (user created) routes can diminish the natural appearance of the forests and in turn reduce the scenic quality associated with a forest landscape.

There is no quantification or analysis of the impacts of the proposed dispersed camping management scheme other than a number of campsites identified thus far (1,611), the number of acres open to dispersed camping in each alternative, and the acknowledgement that camping occurs along unauthorized routes and “[s]ome existing resource impacts that are a result of dispersed camping are crushed vegetation, clearing of vegetation in some areas, campfire rings, and sanitation issues.” Forest Service 2010 TMP DEIS at 48. There is no indication of the impacts that current dispersed camping is having on each vegetation type, riparian areas, or wildlife habitat, including habitat for threatened and endangered species.

One of the predominant sources of noise (and therefore user conflicts) is motorized vehicle use associated with dispersed campsites. Forest Service 2010 TMP DEIS at 49. However, in the paragraph in the DEIS regarding non-motorized recreation, camping is not listed as a non-motorized activity. Forest Service 2010 TMP DEIS at 50. It is unreasonable to expect all forest visitors seeking a non-motorized camping experience to seek out the backcountry, such as the Blue Range Primitive Area or Wilderness areas. This is especially unreasonable given that there are currently, and will remain, motorized routes in Inventoried Roadless Areas and primitive and semi-primitive non-motorized areas. Forest Service 2010 TMP DEIS at 50.

More than half of the identified dispersed campsites are accessible via motorized routes in Alternative B. Forest Service 2010 TMP DEIS at 51. Alternative C would provide motorized route access to 1,112 dispersed campsites without the use of corridors. Forest Service 2010 TMP DEIS at 53. The Forest Service must identify an alternative, relative to motorized dispersed camping that would allow motorized route access to a sufficient number of dispersed campsites without the use of corridors. The use of spur routes is preferable than the use of corridors.

While we recommend that all dispersed camping corridors be eliminated, it is critical that dispersed camping corridors that appear in Alternative B (and any other alternative) adjacent to Inventoried Roadless Areas, Wilderness Areas or other management areas closed to motorized uses be eliminated. This is required because, as we have demonstrated with the PowerPoint referenced above and attached, the experience on the Coronado National Forest referenced above and attached picture, as well as the pictures in Appendix N of dispersed camping corridors on the Apache-Sitgreaves National Forest, dispersed camping corridors will, without a doubt, lead to the creation of motorized roads and destruction of resources.

Roads with corridors that require elimination include (but are not limited to):

**Table 3: Roads with dispersed camping corridors adjacent to areas closed to motorized use in Alternative B.**

1802	717	9333	8934
107Q	169	9692	8932
170G	9354	300Y	
172E	84	115	
170	84A	115A	
99A	84F	115	
99I	89A	116	

172	89A1	111	
237	89B	4084	
260B	89B2	212	
79	89B3	215	
9512E	89	217A	
181	50	515	
171	50A	515A	

**Table 4: Route Closure Recommendations for Black Mesa and Western Lakeside RD.**<sup>10</sup>

<b>Route</b>	<b>Resources/Values Impacted</b>
40C	Route leads to PFA in section 1 (T12N;R12E). Proposed dispersed camping area. <b>Close route</b>
75A	Proposed dispersed camping area. [On hold] Route leads to a PAC and is in close proximity to PACs and PFAs (Hart Canyon and Willow Creek). <b>Allow camping at designated sites only.</b>
99”I”	Dispersed camping in Forest Lakes ORV Closure; <b>Close Route</b>
115A	Dispersed camping [On Hold]; Mule deer core habitat and Wild and Scenic (W&S) River buffer zone. <b>Close and decommission route.</b>
115K	Impacts PAC (Leonard Canyon); <b>Close and decommission route</b>
115N	Proposed dispersed camping area [On Hold]. Impacts PAC (Leonard Canyon) <b>Close and decommission route.</b>
122B	Adjacent to Wildcat PAC; Proposed dispersed camping corridor [On Hold] which would adversely impact the MSO. <b>Close route.</b>
125	Section between junctions with 166 and 300 impacts PFA near Outlaw Seep; also proposed as a dispersed camping corridor. <b>Eliminate dispersed camping exemption.</b>
162	Impacts PFA/PAC south of Black Canyon Lake; proposed as a dispersed camping corridor. <b>Eliminate dispersed camping exemption.</b>
166	Section between its junction with 9572T and 51 passes through a PFA. <b>Eliminate dispersed camping exemption.</b>
169T	Road impact PAC (Chevelon Canyon); proposed as dispersed camping corridor [On Hold]. <b>Eliminate dispersed camping exemption</b>
170B	Adjacent to Wildcat PFA; road to nowhere. Proposed dispersed camping area. <b>Eliminate dispersed camping exemption.</b>
180B	Impacts PAC adjacent to Chevelon Canyon. Proposed dispersed camping area [On Hold]. <b>Close and decommission route.</b>
461	PAC; Proposed dispersed camping. <b>Close at the 7200-foot contour</b> south of the saddle in section 7 (T13N;R13E).
9004	PAC and W&S buffer; <b>close at the 7100-foot contour</b> in section 8 (T13N;R13E).

<sup>10</sup> These routes, recommended as open in Alternative B, were proposed for closure or not as a camping corridor in CBD et al. 2008).

9521M	Road to nowhere penetrating the proposed Wild Cat WHA; proposed dispersed camping area {On Hold}. <b>Close route</b>
9523L	Adjacent to Wildcat PFA; proposed as dispersed camping area. <b>Close route.</b>
9551F	Adjacent to PFA (Wildcat); proposed as dispersed camping area. <b>Close route.</b>
9551K	Impacts PFA (Wildcat); previously closed; proposed as designated open area [On Hold]. <b>Close route.</b>
9559F	Impacts PAC/PFA (Mogollon Rim); previously closed;. <b>Close route.</b>
9569J	Impacts PAC/PFA (Mogollon Rim); <b>Restrict access.</b>
9571D	Impacts PAC/PFA (Mogollon Rim); proposed dispersed camping area. <b>Restrict access.</b>
9571"O"	Impacts PAC/PFA (Mogollon Rim); previously closed. Proposed open area [On Hold]. <b>Restrict access.</b>
9576K	Impacts PAC (Mogollon Rim). Proposed dispersed camping [On Hold]. <b>Restrict access.</b>

## **XI. Need to comply with Executive Orders on all designated routes that will allow ORVs**

In Arizona, ORVs can be made “street legal,” meaning they are permitted to drive on any route open to passenger cars unless the Forest Service chooses to restrict them specifically. This means that virtually *all* Forest Service routes will be used by ORVs.

We point out that the Executive Orders use the term “shall” regarding the minimization of the impacts of ORV use on Forest Service lands. (Executive Order 11644 as amended §§ 8 and 9, more information on this point below.) At the same time, the Forest Service already has the authority to restrict ORVs on Forest Service routes, specifically, 36 CFR 212 makes clear that “roads, or segments thereof, may be restricted to use by certain classes of vehicles or types of traffic as provided in 36 CFR part 261. Classes of vehicles may include but are not limited to distinguishable groupings such as passenger cars, buses, trucks, motorcycles, all-terrain vehicles, 4-wheel drive vehicles, off-highway vehicles, and trailers. Types of traffic may include but are not limited to groupings such as commercial hauling, recreation, and administrative.” (Emphasis added.)

The preamble to the Executive Orders makes clear that it is the use of ORVs on public lands that are causing harm to public lands:

An estimated 5 million off-road recreational vehicles--motorcycles, minibikes, trial bikes, snowmobiles, dune-buggies, all-terrain vehicles, and others--are in use in the United States today, and their popularity continues to increase rapidly. The widespread use of such vehicles on the public lands--often for legitimate purposes but also in frequent



conflict with wise land and resource management practices, environmental values, and other types of recreational activity--has demonstrated the need for a unified Federal policy toward the use of such vehicles on the public lands.

It is not the bureaucratic name of the route the ORV is used upon, but rather the use of the ORV itself that lead Presidents Nixon and Carter to order federal agencies to rein in unmanaged motorized recreation. The Executive Orders are intended to be broadly applicable to all federal land management agencies and all of the land they manage. The minimization requirements of the Executive Orders must apply to all lands and routes on which ORVs travel under the jurisdiction of the Forest Service, whether classified as routes, roads, or trails.

Section 1. *Purpose.* It is the purpose of this order to establish policies and provide for procedures that will ensure that the use of off-road vehicles on public lands will be controlled and directed so as to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands.

**Sec. 3. Zones of Use.** (a) Each respective agency head **shall** develop and issue regulations and administrative instructions, within six months of the date of this order, to provide for administrative designation of the specific areas and trails on public lands on which the use of off-road vehicles may be permitted, and areas in which the use of off-road vehicles may not be permitted, and set a date by which such designation of all public lands shall be completed. Those regulations **shall** direct that the designation of such areas and trails will be based upon the protection of the resources of the public lands, promotion of the safety of all users of those lands, and minimization of conflicts among the various uses of those lands. The regulations **shall further require** that the designation of such areas and trails **shall** be in accordance with the following--

(1) Areas and trails **shall** be located to minimize damage to soil, watershed, vegetation, or other resources of the public lands.

(2) Areas and trails **shall** be located to minimize harassment of wildlife or significant disruption of wildlife habitats.

(3) Areas and trails **shall** be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.

(4) Areas and trails **shall not** be located in officially designated Wilderness Areas or Primitive Areas. Areas and trails shall be located in areas of the National Park system, Natural Areas, or National Wildlife Refuges and Game Ranges only if the respective agency head determines that off-road vehicle use in such locations will not adversely affect their natural, aesthetic, or scenic values.

(b) The respective agency head **shall** ensure adequate opportunity for public participation in the promulgation of such regulations and in the designation of areas and trails under this section.

(c) The limitations on off-road vehicle use imposed under this section shall not apply to official use.

**Sec. 9. *Special Protection of the Public Lands.*** (a) Notwithstanding the provisions of Section 3 of this Order, the respective agency head **shall**, whenever he determines that the use of off-road vehicles will cause or is causing considerable adverse effects on the soil, vegetation, wildlife, wildlife habitat or cultural or historic resources of particular areas or trails of the public lands, immediately close such areas or trails to the type of off-road vehicle causing such effects, until such time as he determines that such adverse effects have been eliminated and that measures have been implemented to prevent future recurrence.

(b) Each respective agency head is authorized to adopt the policy that portions of the public lands within his jurisdiction shall be closed to use by off-road vehicles except those areas or trails which are suitable and specifically designated as open to such use pursuant to Section 3 of this Order.

(emphasis added)

In addition, all designated routes must be evaluated and monitored for adverse effects of off-road vehicle use to soils, vegetation, wildlife, and other natural resources and when considerable adverse impacts are discovered, the Forest Service *shall* immediately close the area or routes to ORV use. Executive Order 11644 as amended §§ 8 and 9.

Similarly, the Apache-Sitgreaves National Forests' Forest Plan requires that off-road vehicle activities will be managed to minimize conflicts with other uses, to prevent interference with the management of other resources, and to prevent general environmental degradation. Forest Service 1987 at page 34.

All of these criteria should have been applied to all routes proposed for motorized uses.

- Damage to soil, watershed, vegetation and other forest resources
- Harassment of wildlife and significant disruption of wildlife habitats
- Conflicts between motorize vehicle use and existing or proposed recreational use of NFS lands or neighboring Federal lands
- Compatibility of motor vehicle use with existing conditions in populated areas, taking into account sound, emissions, and other factors

This analysis has not been done, therefore the Forest Service must, at a minimum, release a supplementary DEIS with this analysis.

## **XII. Critique of Effects Analysis**

The Forest Service fails to adequately analyze the effect of the proposed alternatives on the long-term productivity of the Forest. NEPA requires consideration of "the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity" (40 CFR 1502.16). In the Draft EIS the Forest Service states that "The change in the designated road system under any action alternatives does not jeopardize the long-term productivity of the lands and resources on the Apache-Sitgreaves National Forest" (at 35). We

believe that all of the currently analyzed alternatives will indeed jeopardize the long-term productivity of the lands and resources on the Apache-Sitgreaves National Forest. As outlined in, Table 1: Comparison of Action Alternatives, all of the alternatives propose to add unauthorized routes to the system, to add miles of road in the Blue Range Primitive Area, and all of the alternatives except C shift designation of routes to motorized trails greatly increasing the amount of motorized trails. There is no justification for this statement which, taken on its face, would indicate that the Forest Service can do whatever it wants with the road system with no affect on long-term productivity of Forest resources. When compounding factors such as climate change and the body of evidence detailing negative ecological effects of roads are taken into consideration, there is no justification for this statement.

### **A. Climate Change**

The only place that the Forest Service address climate change in the DEIS is in the Air Quality Analysis. The Forest Service asserts "[a]lthough it is implied that emissions from motor vehicle use contain greenhouse gases that may ultimately contribute to global climate change, it is not possible to predict the amount of public motor vehicle use occurring forestwide." Forest Service 2010 DEIS at 100.

We reject the assertion by the Forest Service that it is impossible to quantify the impacts of this project resulting from a minor source such as motor vehicle use due to the "current state of science," or that the impacts to the landscape of this project are irrelevant in light of climate change, or that the impacts of this project are irrelevant to global climate change. If the Forest Service truly believes that project level analysis of emissions will be "insufficient to cause any change to the climate," there will never be an analysis of the projects that are causing global climate change because it is the cumulative impacts of hundreds and thousands of individual projects that contribute to global climate change. Forest Service 2010 DEIS at 101. The Forest Service statement is analogous to saying that because the impacts of each individual motorized vehicle on America's highways contributes an infinitesimal amount of emissions relative to the global atmosphere, there is no impact from each motorize vehicle, therefore the impacts of vehicles in terms of global climate change cannot be determined. However, it is the impact of each of the millions of vehicles, each contributing a small portion of the emissions that lead to global climate change, that must be addressed.

We also reject the assertion that "the growth of trees in the forests provides a carbon sink that would offset any effect of emissions from vehicles." Forest Service 2010 DEIS at 101. When the Forest Service maintains that the "state of science cannot support a direct calculation of climate change" then how is the Forest Service able to calculate that "the growth of trees would offset any emissions." Forest Service 2010 DEIS at 101. There is no supporting documentation, analysis or explanation for this contradictory assertion. Not only are emissions important in the analysis of this project in light of global warming, but ecosystem resilience is a key issue to consider on a project level.

We again assert the Forest Service *must* analyze the impacts of **global warming and climate change** for this project. For example, to what extent does the scientific literature describe the impacts to and appropriate use (including motorized recreation) of any and/or all of the habitat types on the forest during short- and long-term drought and under varied climate regimes? The

Intergovernmental Panel on Climate Change's (IPCC) most recent assessment demonstrates that climate change – in particular as a result of anthropogenic drivers causing global warming – is a pressing issue that must be addressed by the world's communities.<sup>11</sup> The debate is now shifting to how we can mitigate global warming by reducing greenhouse gas emissions, and, most relevant here, how we can adapt our communities and ecosystems to withstand climate change impacts. On this latter front, the IPCC assessed the “current scientific understanding of impacts of climate change on natural, managed and human systems, the capacity of these systems to adapt and their vulnerability.”<sup>12</sup> The IPCC Report thus serves as a useful starting point for the Forest Service to address climate change impacts to the Apache-Sitgreaves National Forest and consider appropriate conservation measures necessary to protect the Apache-Sitgreaves National Forests' natural and cultural resources.<sup>13</sup>

The IPCC, made up of over 1,000 scientists from over 100 countries, recently concluded that it is “very likely” (90 percent probability) that human activities are the main cause of global warming. The potential environmental consequences that may be caused by global climate change are both enormous and alarming. ***There is no longer any reasonable doubt that human-caused pollution is already resulting in substantial changes to the global environment.***<sup>14</sup>

Moreover, ***scientists, including Forest Service researchers, have already recognized global warming as a key threat to biodiversity.***<sup>15</sup> In fact, the United States Government Accountability Office recently recommended that the Secretary of Agriculture develop guidance to advise managers on how to address climate change effects on the resources that they manage.<sup>16</sup>

The nation's public lands, and especially the national forests, play a critical role in providing habitat and protection for hundreds of fish and wildlife species. The vast majority of the public has repeatedly made clear that it places a high value on the use of National Forest System lands for fish and wildlife protection. With a growing and sprawling population, resulting in the continued fragmentation of private lands, along with the unprecedented uncertainty created by the current climate crisis, the Forest Service must address the issues of global warming in

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<sup>11</sup> IPCC, 2007: Summary for Policymakers. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, M. Tignor and H.L. Miller (Eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA (<http://ipcc-wg1.ucar.edu/wg1/wg1-report.html>).

<sup>12</sup> IPCC, 2007: Summary for Policymakers. In: Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Groups III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, M. Tignor and H.L. Miller (Eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA ([www.ipcc.ch/SPM13apr07.pdf](http://www.ipcc.ch/SPM13apr07.pdf)) (“IPCC Report”).

<sup>13</sup> Of note, the Global Climate Change Prevention Act of 1990 (7 U.S.C. §§ 6701 et seq.) establishes a program whereby the program's director must “ensure that recognition of the potential for climate change is fully integrated into the research, planning, and decision-making processes of the Department [of Agriculture].”

<sup>14</sup> See, e.g., Intergovernmental Panel on Climate Change (“IPCC”) February, 2007, Summary for Policymakers, “Climate Change 2007: The Physical Science Basis,” available at <http://ipcc-wg1.ucar.edu/wg1/wg1-report.html>.

<sup>15</sup> See e.g., Malcom, Jay R.; Liu, Canran; Neilson, Ronald P.; Hansen, Lara; Hannah, Lee, “Global Warming and Extinctions of Endemic Species from Biodiversity Hotspots,” Conservation Biology, Vol. 20(2): 538-548 (2006) See also Matthews, Stephen N.; O'Connor, Raymond J.; Iverson, Louis R.; Prasad, Anantha M., “Atlas of Climate Change Effects on 150 Bird Species of the Eastern United States,” Forest Service Northeastern Research Station Gen. Tech. Report NE-318 (2004) (projecting that as many as 78 of 150 common bird species may decrease by at least 25 percent due to global climate change); and the IPCC's April, 2007, Summary for Policymakers, “Climate Change 2007: Impacts, Adaptation and Vulnerability,” available at <http://www.ipcc-wg2.org/index.html>.

<sup>16</sup> August, 2007, U.S. GAO Report, “Climate Change: Agencies Should Develop Guidance for Addressing the Effects on Federal Land and Water Resources,” available at <http://www.gao.gov/new.items/d07863.pdf>.

conjunction with Travel Management Planning both in terms of climate change effects on the resource and potential contribution of the alternatives to climate change.

The Forest Service recognizes that climate change will affect the ability of national forest lands to continue delivering a broad range of benefits, including clean air and water, habitat for wildlife, opportunities for outdoor recreation, and more.<sup>17</sup> Nearly one fifth of the Nation's water originates on the National Forest System<sup>18</sup> making the protection of healthy watersheds important. These issues area associated with the following resources analyzed in the DEIS for anticipated effects: forest vegetation, soils and watershed, air quality, wildlife and rare plants, fisheries, and cultural resources. However, the Forest Service fails to include climate change considerations in any of these analyses.

Forests are the most significant terrestrial stores of living carbon, and in fact slow global warming by storing and sequestering carbon.<sup>19</sup> “Forest plants and soils drive the global carbon cycle by sequestering carbon dioxide through photosynthesis and releasing it through respiration.”<sup>20</sup> Through photosynthesis, plants capture carbon dioxide and convert it to plant matter that then feeds the base of the entire planetary food chain.<sup>21</sup> Old-growth forests are able to store massive amounts of carbon in their trunks as well as in the soil.<sup>22</sup>

When forests are degraded or logged, their stored carbon is released back into the atmosphere during harvest and through respiration, thus becoming net contributors of carbon to the atmosphere.<sup>23</sup> Forests are able to help mitigate global warming in at least three ways: conserving existing forests to avoid emissions associated with forest degradation or clearing; sequestration by increasing forest carbon absorption capacity - occurring primarily by planting trees or facilitating the natural regeneration of forests, and the substitution of sustainability produced biological products.<sup>24</sup> In other words, to help our forest store more carbon, and thereby alleviate the leading cause of global warming, we need healthy forests.<sup>25</sup>

Global climate change presents a significant threat to the current ecosystems of the southwest.<sup>26</sup> When compared to the 20<sup>th</sup> century average, the Western United states has experienced an increase in average temperature during the last five years that is 70 percent greater than the world as a whole.<sup>27</sup> Of special concern is the increase in temperatures occurs more at higher elevations than lower elevations, affecting snow resources which supply much of the western United State's fresh water supply.<sup>28</sup> The IPCC projects that warming of the western climate will continue,

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<sup>17</sup> USDA Forest Service. 2010. National Roadmap for Responding to Climate Change. 30 pp

<sup>18</sup> USDA Forest Service. 2010. National Roadmap for Responding to Climate Change. 30 pp

<sup>19</sup> See Union of Concerned Scientists, “Recognizing Forests’ Role in Climate Change,” available at [http://www.ucsusa.org/global\\_warming/solutions/recognizing-forests-role-in-climate-change.html](http://www.ucsusa.org/global_warming/solutions/recognizing-forests-role-in-climate-change.html) See also Heiken, D., “The Straight Facts on Forests, Carbon, and Global Warming,” available at <http://tinyurl.com/2by9kt>

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

<sup>21</sup> See Heiken, D., “The Straight Facts on Forests, Carbon, and Global Warming,” available at <http://tinyurl.com/2by9kt>.

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

<sup>23</sup> Union of Concerned Scientists, 2004.

<sup>24</sup> *Id.*

<sup>25</sup> *Id.*

<sup>26</sup> Weltzin and McPherson, 1995.

<sup>27</sup> Hotter and Drier, 2. Arizona’s average temperatures were 2.2 degrees Fahrenheit warmer in 2003-2007 than for the previous 100 years. (Hotter and Drier, 41)

<sup>28</sup> Hotter and Drier, 5.

making it imperative the Apache-Sitgreaves National Forests consider the impacts of global warming on each proposed action, including travel management.

Several federal entities have published studies on climate change that could easily have been utilized by the Forest Service to analyze the impacts of this project in the context of climate change. These recent studies include:

- 1) U.S. Climate Change Science Program Final Report, Synthesis and Assessment Product 4.4, “Preliminary Review of Adaptation Options for Climate-Sensitive Ecosystems and Resources” (June 2008), *available at* <http://www.climatescience.gov/Library/sap/sap4-4/final-report/> and attached as Appendix O;
- 2) Committee on Environment and Natural Resources, National Science and Technology Council, “Scientific Assessment of the Effects of Global Change on the United States” (May 2008), *available at* <http://www.climatescience.gov/Library/scientific-assessment/> and attached as Appendix P; and
- 3) U.S. Climate Change Science Program, Synthesis and Assessment Product 5.2, “Best Practice Approaches for Characterizing, Communicating and Incorporating Scientific Uncertainty in Climate Decision Making” (April 2008), *available at* <http://www.climatescience.gov/Library/sap/sap5-2/public-review-draft/default.htm> and attached as Appendix Q.

These studies provide important information about the impacts of climate change on lands like the Apache-Sitgreaves National Forests, as well as emerging new best management practices to employ in the face of climate change. The June 2008 report, prepared by the Environmental Protection Agency, specifically “identifies strategies to address management challenges posed by climate change for a subset of federally protected lands and waters. These strategies can also be broadly applied to other lands and waters managed by governmental or nongovernmental entities.” This information should have been included in the analysis of the alternatives in order to adequately address climate change.

Observed and anticipated impacts caused by climate change may require more aggressive actions to protect, restore, and enhance ecological resiliency. Such actions could entail protecting migratory wildlife corridors by reducing route densities, physically decommissioning and eliminating routes in bottlenecks and other important habitats, and administratively designating protected areas, free from motorized use, to protect wildlife. Similar actions may be warranted to protect other forest resources, such as water quality. But without acknowledging the threat of climate change and building this threat into the agency’s analysis of impacts and consideration of alternatives, the Forest Service cannot make a reasoned and informed decision pertaining to motorized recreation. In particular, the Forest Service may be grossly underestimating the cumulative impacts of permitting an extensive motorized route system and, regardless, is failing to consider an increasingly dominant consideration for public lands management.

We believe that observed and anticipated impacts caused by climate change may require more aggressive actions to protect, restore, and enhance ecological resiliency, as emphasized by Secretary Vilsack. Such actions could entail protecting wildlife migratory and movement corridors by significantly reducing grazing impacts, logging activities and route densities, and

administratively designating additional protected areas, free from motorized use, to protect wildlife.

- An additional significant development occurred when, on December 17, 2009, Agriculture Secretary Tom Vilsack announced, "Our shared vision begins with restoration. **Restoration, according to the Forest Service, means managing forest lands first and foremost to protect our water resources, while making our forests more resilient to climate change.**" *Forest Service 2009b*. Resiliency is the capacity to recover and return from a disturbance (whether natural or anthropogenic) to its pre-disturbance state and sustain ecosystem function. Herrick *et al.* 1999. Biological integrity, a key prerequisite for resilient landscapes, is the capacity of an ecosystem to support and maintain a biota that is comparable to that found in natural conditions. Frey 1977; Karr *et al.* 1986. Secretary Vilsack subsequently stated, "Developing a new [Forest Plan Revision] planning rule provides the opportunity to manage national forests and grasslands for the benefit of water resources, the climate and local communities." *Forest Service 2009b*. The Forest Service (2009b) presented "Potential Principles" that could guide development of a new planning rule which include an emphasis on:
  - Restoration
  - Conservation
  - Improved resilience of ecosystems
  - Watershed Health
  - Climate Change Response
  - Species Diversity
  - Wildlife Habitat
  - Sustainable National Forest Lands
  - Proactive collaboration
  - Working Across Landscapes

This general guidance should be incorporated into all USFS planning and management, including the TMP. Our concerns specific to resources include:

***The Apache-Sitgreaves National Forests must address the issues of smaller snowpack, earlier spring runoff with higher peak flows and lower summer stream flows, greater variability in precipitation, increased intensity of precipitation events, increased temperatures and the impacts associated with these phenomena on ecosystems in connection with the Travel Management Plan to properly determine the impacts of the proposed route system on the Apache-Sitgreaves National Forests.***

Impacts associated with pest and disease outbreaks in forests should be analyzed along with the TMP as these impacts are expected to increase with global warming.<sup>29</sup> The analysis of the impacts of global warming in conjunction with the impacts of off-road vehicle use are especially important in a forest that is home to a portion of the country's largest contiguous expanse of

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<sup>29</sup> Hotter and Drier, 21. The IPCC reports with "very high confidence" that insect outbreaks are increasing and are likely to intensify in a warmer future with drier soils..."

ponderosa pine forest and given the known ability of off-road vehicles to act as a dispersal agent for noxious species.

The information contained in the Air Quality Specialist Report does not include information on traffic counts in the Apache-Sitgreaves National Forests and no quantification of the impacts of the No Action Alternative or any alternative are presented. This yields the analysis of the alternatives a near meaningless comparison of a percent change in miles of roads, the impacts of which are undisclosed.

We believe the Forest Service *can and should* calculate the likely greenhouse gas emissions from this project. We have found the EPA's calculator very helpful when examining such projects, and we believe the Forest Service must employ this or some other methodology to calculate likely GHG emissions. See <http://www.epa.gov/RDEE/energy-resources/calculator.html#results>. In addition, we believe the Forest Service should examine the carbon sequestration potential lost by maintaining such a vast road network. The Wilderness Society has recently completed a fact sheet on the matter, which we have attached as Appendix R.

Climate change is exacerbating the many human-caused impacts that are already leading to species decline. One of the most common and far-reaching anthropogenic features on the National Forests are roads. The impacts of climate change and roads on both aquatic and terrestrial ecosystems will likely be intensified by their interaction and cumulatively, pose more serious threats to many species than either does alone. One adaptation strategy that may directly affect the resilience of many species and ecosystems is decommissioning of forest roads. The EIS must consider and disclose the potential consequences of motorized recreation in the Apache-Sitgreaves National Forest in conjunction with the impacts of global warming.

## **B. Cultural Resources**

In documents obtained through a Freedom of Information Act Request by The Wilderness Society in 2009, and reviewed by the Center for Biological Diversity, several incidents of archaeological damage on the Apache-Sitgreaves National Forests caused directly by off-road vehicle use are clearly documented. The Center was able to determine the impacts were directly caused by ORVs despite the heavily redacted nature of the documents. We suggest the Forest Service review incident reports for archaeological damage from at least 2000 to the present to determine the number and location of sites directly, seriously, and negatively impacted by ORVs or dispersed camping in the Apache-Sitgreaves National Forests.

### *Examples:*

Site Number AR-03-01-06-xx (page 5 of Appendix FF): March 2006: Evidence of recent archaeological looting activity was investigated and a route to the site for vehicle access was hidden from view of the main road. It is unclear from the report if this route was user-created Site was revandalized in April 2006.

Site Number AR 03-01-07-xx (page 20 of Appendix FF): July 5, 2006: Project calling for the closure of a user-created route to prevent further damage to an archaeological site being damaged



by looting and vandalism.

Site Number AR-xx-xx-xx (page 35-45 of Appendix FF): Summary of Damage to site includes damage caused by vehicle (bulldozer) being driven through the site causing deep rutting.

Site Number AR-03-01-07-xx (page 52 of Appendix FF): 4-wheel tracks across archaeological site along with bulldozer rock piles. Note this report was heavily redacted and very difficult to read.

Site Number AR-03-01-07-xx (page 62 of Appendix FF): Recent looting of site appears tied to use of user-created route that “dissects the site in several places.” Recent ATV use is noted along with a new user-created route.

We have attached as Appendix FF, Archeological Impacts Report from Forest Service .We suspect there are many additional sources of information available to the Apache-Sitgreaves National Forests’ staff that would provide geographical information on damaged archaeological sites and their proximity to roads or motorized trails. Utilizing this information, the Forest Service could determine the impact road location and density is having on archaeological sites.

A recent report by Spangler *et al.* (2006) indicates that cultural resources near roads experience higher incidences of vandalism. This report’s conclusions are based on an analysis of 339 sites in Range Creek Canyon, Utah. The authors report that sites within 200 meters of a road are vandalized more often than more remote sites and the “vast majority of vandalized sites are located within 200 meters of the roadway...but beyond 200 meters vandalism drops precipitously...” Spangler 2006. Vehicle restrictions could significantly protect cultural resources from indirect effects of vehicle accessibility.

It does appear that the Forest Service assigned some level of significance to archaeological sites in the Apache-Sitgreaves National Forests and utilized GIS to analyze the known impacts to sites in relationship to route proximity because of the significant reductions in the number of open motorized “play areas” and motorized dispersed camping corridors. However, it is not clear if this is the case and we ask the Forest Service to be explicit if this is the case.

### **C. Soils and Watershed**

Our recommended alternative did not include any user-created routes. As we state above, the Travel Management Rule explains that “[u]ser created routes were developed without agency authorization, environmental analysis, or public involvement and do not have the same status as National Forest System roads and trails included in the forest transportation system.” 70 Fed. Reg. 68268. The environmental impacts of these routes have never been assessed. The need for environmental review for user-created roads is particularly important because these routes have a high potential for environmental damage given that they have not been designed or maintained to avoid such impacts and impacts to soils and watersheds will have serious and long-lasting consequences.

The Forest Service has conducted its analysis of effects on vegetation for each alternative under the assumption that "[u]nauthorized routes may not be in an acceptable condition, unless site-specific information exists to the contrary. This is based on the fact that unauthorized routes were created without engineered design." Forest Service 2010 DEIS at 79. Despite this recognition, the Forest Service offers no site-specific analysis for any of the 28-64 miles of unauthorized routes proposed to be added to the system through the various alternatives.

As we state elsewhere in this letter, the Forest Service cannot make user-created routes permanent without conducting site-specific environmental review. Such an approach subverts the purposes of NEPA. Such analysis must be included in a NEPA document and be open to public comment under NEPA. "The adequacy of the environmental impact statement itself is to be judged solely by the information contained in that document. Documents not incorporated in the environmental impact statement by reference or contained in a supplemental environmental impact statement cannot be used to bolster an inadequate discussion in the environmental impact statement." *Village of False Pass v. Watt*, 565 F. Supp. 1123, 1141 (D. Alaska 1983), *aff'd sub nom Village of False Pass v. Clark*, 735 F.2d 605 (9th Cir. 1984). Moreover, without full analysis of the past, present, and future impacts of each new system route, it is impossible to understand the full environmental consequences of this project on soils and watersheds.

For example, the designation of a user-created route in proximity to a stream may cause significant direct, indirect, and cumulative impacts to water quality. But the DEIS, by not taking a site-specific hard look at each newly designated route within its proper environmental "context," blurs and effectively understates the "intensity" of these impacts. 40 C.F.R. §§ 1508.27(a), (b).

We request the Apache-Sitgreaves National Forests provide documentation of site-specific analysis for each user-created route added to the system in the proposed action. Those user created routes proposed for designation in this project have not been properly considered in the Draft EIS for this project. It appears that the impact of specific routes was identified only through a GIS exercise, without any regard to the specific issues that would be identified through a field visit.

In analyzing the effects on vegetation and noxious weeds, the Forest Service used the assumption that "unauthorized routes not designated for motorized travel are expected to revegetate," and "unauthorized routes not subject to use would continue to be a source of chronic sediment production, but revegetation would stabilize soils reducing sediment production, particularly in comparison to open roads subject to vehicular use." Forest Service 2010 DEIS at 79. This leads the Forest Service to conclude that unauthorized routes not designated for motorized travel would "provide positive effects to vegetation under all action alternatives." The Forest Service does not support this conclusion with analysis and does not take into consideration the reality that unauthorized roads, whether included in the legal forest road system or not, will continue to affect the environment. Compacted road beds impede water infiltration and also block subsurface waterflows, thus altering the hydrology of the landscape. These effects will take years or even decades to be abated by abandoning the roads to passive revegetation. Additionally in the Watershed and Soil Specialist Report, the Forest Service states the following with regard to direct and indirect effects common to all action alternatives:

To the extent that wheeled motor vehicle traffic is the primary cause of erosion, with the exception of new construction, prohibiting motorized use of existing routes will result in less erosion. Similarly, increasing motor vehicle use would result in more erosion. In most situations, however, erosion is the result of a combination of factors that include poor route design or location, lack of drainage, and inadequate maintenance.

Forest Service 2010 DEIS at 36. This would indicate that the mere existence of the road on the landscape is a far more telling measure of erosion than is the amount of vehicular traffic traversing the road and is contradictory to the above conclusion in the DEIS.

In the analysis of alternatives for soil and watershed impacts, the Forest Service fails to adequately analyze or disclose the effects of road to trail conversion. Alternatives B and D propose to convert 60+ miles of currently closed Forest Service routes into motorized trails. This does not appear to be analyzed in the DEIS. Trail maintenance requirements are more lenient than road requirements and therefore roads converted to trails are likely to cause environmental harm. Additionally, in Alternative B, D and E the Forest Service proposes to add anywhere from 20-62 additional miles of user-created roads as motorized trails. As described above, these unauthorized routes need to be analyzed on a site-specific basis and the realistic impact of motorized use of trails included in the analysis.

There is no analysis of road density based on areas of 5<sup>th</sup> level HUCs as claimed in the DEIS. The Forest Service recognizes that:

“Road closures would be beneficial to water quality if the roads were properly decommissioned and well maintained after closure. A well-maintained, closed road system would result in less sediment from road surface erosion. Roads not proposed for designation as a motor vehicle route in the project area may have long-term adverse effects on water quality if they are not properly maintained.”

Forest Service 2010 DEIS Fisheries Report at 25. Yet, in the analysis of the affected environment, the Forest Service makes the assumption that “ML1 roads would be expected to revegetate and heal unless reopened for administrative purposes. Roads that are not traveled would produce less sediment than those with traffic.” Forest Service 2010 DEIS at 93. There are more dynamics at play in erosion and changes to the hydrology of an area than just vehicles traversing an already created road. The linear nature of roads and their tendency to run across topographic gradients have an influence on watershed scale hydrologic processes greater than the land area they occupy. Concentration of runoff from impervious road surfaces and intercepted subsurface flow into ditches effectively increases the drainage density. These hydrologic effects are responsible for changes to geomorphic processes and sediment loads in roaded forest areas. Luce and Wemple 2001. Forest roads impact hydrology by limiting infiltration. Lack of vegetation limits interception of precipitation thereby leaving more water to runoff increasing erosion and siltation. La Marche and Lettenmaier 2001. La Marche and Lettenmaier 2001. The presence of roads, whether they are being driven on or not, fundamentally disrupt natural drainage patterns by diverting water and by preventing water infiltration into soil. We

recommend the Forest Service produce a more thorough analysis of impacts to watersheds based on the factors explained above and on the combination of these factors.

Based on the way the data is presented in the DEIS (at 91 and at 98) is not apparent that the Forest Service analyzed how the factors they identified act cumulatively. For example there are likely specific roads that are both on TES soils of concern and cross perennial streams. The Forest Service offers no cumulative analysis of these combined impacts but rather lists total miles or acres for each indicator criteria separately. We are unable to understand how the Forest Service is able to compare alternatives without somehow looking at this information in aggregate, and without analyzing these indicator criteria on a route specific basis.

#### **D. Water Quality/Fisheries**

The Apache-Sitgreaves National Forests have the most stream miles with native fish species occurrences within Region 3 and account for nearly 40% of all occupied stream miles with native fish species occurrences within Region 3 National Forests in Arizona.<sup>30</sup> Ten of 13 native fish species on the Apache-Sitgreaves addressed by Olden and Poff (2005) were determined to have declining distributions suggesting an increased probability of extirpation from the forest. The Southwest Forest Assessment (Vander Lee, et al., 2006) suggests it may be important to consider the uses and activities that occur within these areas to assess their compatibility with maintaining the distribution and populations of native fish.

The Forest Services' analysis for the seven federally listed species on the Forests including Apache trout, Gila chub, Gila trout, Loach minnow, Spikedace and razorback sucker, Roundtail chub, and Little Colorado spinedace, is difficult to follow and does not provide enough information for the public to understand how they came their conclusions for impacts for each alternative. The Forest Service offers summaries of increases in miles of open roads and miles of closed roads. From this information they draw the conclusion for alternatives B-E that " there would be an increase in the percentage of open and closed roads as shown in table 36 which displays the routes and areas within fish species habitat." Based on the information available in Draft EIS it is unclear how the Forest Service is drawing their conclusions. We need more information to understand the rationale behind the Forest Service's conclusions.

Projected climate changes include warmer air temperatures, more frequent, longer and drier droughts, changes in precipitation amounts and timing, intensified storms and greater extremes and less snow fall and earlier snowmelt, particularly in "warm snowpacks." Selected consequences to watershed services due to these changes outlined in a recent Forest Service Technical Report<sup>31</sup> include:

- Changes in the amounts, quality, and distribution of water-dependent habitats and associated biota; most changes will be adverse for coldwater fishes.

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<sup>30</sup> B. Vander Lee, R. Smith, and J. Bate. 2006. Ecological and Biological Diversity of the Apache-Sitgreaves National Forests, chapter 7 in: Ecological and Biological Diversity of National Forests in Region 3. The Nature Conservancy.

<sup>31</sup> USDA Forest Service, Pacific Northwest Research Station. 2010. Water, climate change, and forests: watershed stewardship for a changing climate. Gen. Tech. Rep. PNW-GTR-812. Portland,

- Changes in the availability of water supplies. Decreased soil productivity.
- Altered recreational and cultural experiences.
- Complex changes in water quality related to flow and sediment changes.
- Ecological changes related to moisture availability in soils, streams, lakes, and wetlands.
- Changes in the amounts, quality, and distribution of aquatic and riparian habitats and biota.
- Changes in the availability of water supplies

The report also notes that “[c]limate change, past impacts, and the ongoing development and fragmentation of streams across private lands will dramatically increase the role of national forests and other conserved wildlands as refugia for aquatic species.” The report goes on to note “[t]his may increase demands for greater habitat protections, which could conflict with meeting other management objectives such as increasing energy production, recreation access, and water diversions.”

The Forest Service does not address this reality in any of their alternatives and does not adequately analyze the effects of the various alternatives within the context of this reality. There are more complex factors contributing to water quality, fisheries health and soils and watershed health than the sum total of roads open to public travel that cross a perennial stream. We request that the Forest Service analyze the impacts of their various alternatives within the context of reality of the changes already happening on the Forest and projected to happen, and follow the guidance of the Forest Service’s own technical reports which includes recommended responses such as:

- Manage recreational access to avoid or minimize soil and water resource damage.
- Prioritize and treat road networks by storm proofing and decommissioning to restore natural flow patterns, reduce erosion, and increase system durability.
- Minimize ground disturbance and land-use changes that reduce groundwater recharge, and implement BMPs that encourage groundwater recharge from impervious and disturbed areas.

The range of alternatives and analysis of affects from those alternatives do not appear to take the Apache-Sitgreaves National Forests’ roles in sustaining water supplies and native fish seriously.

<sup>32</sup>

While we agree that the prohibition of general cross-country travel will have beneficial effects for these species, there is no analysis supporting the Forest Service's conclusion that the net addition of road miles and acreage open to MBGR in identified fish habitat

The Forest Service asserts that “[t]he environmental consequences associated with all alternatives fall within forest plan standards and guidelines.” There is no supporting analysis in the Draft EIS document indicating how the Forest Service came to this conclusion.

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<sup>32</sup> USDA Forest Service, Pacific Northwest Research Station. 2010. Water, climate change, and forests: watershed stewardship for a changing climate. Gen. Tech. Rep. PNW-GTR-812. Portland,

The ASNF Forest Plan (1987) identifies the following streams/riparian habitats as the number one priority for management emphasis due to the presence of Threatened and Endangered Species.

**Table 5: Priority Streams/Riparian Habitats**

<b>Priority 1 – Threatened and Endangered Species Stream/Riparian</b>	<b>Ranger District</b>	<b>Stream/Riparian</b>	<b>Ranger District</b>
Centerfire Creek	Alpine	Maime Creek	Alpine/Springerville
Wildcat Creek	Alpine	Lee Valley Creek	Alpine
Boggy Creek	Alpine	Hanagan Creek	Springerville
Fish Creek	Alpine	Home Creek	Alpine/Springerville
Hay Ground Creek	Springerville	Soldier Creek	Alpine
KP Creek	Alpine	Campbell Blue River	Alpine
Grant Creek	Alpine	Reservation Creek	Alpine
Coleman Creek	Alpine	Bear Wallow Creek	Alpine
Conklin Creek	Alpine	Snake Creek	Alpine
Double Cienega Creek	Alpine	Stinky Creek	Alpine
Corduroy Creek	Alpine	Chitty Creek	Clifton
Mineral Creek	Springerville	Little Colo. E. Fork	Springerville
Dix Creek	Clifton	Blue River	Alpine/Clifton
Eagle Creek	Clifton	San Francisco River	Clifton
Harden Cienga Creek	Clifton	Nutrioso Creek	Springerville
Chevelon Creek		Chevelon	

Management emphasis for these areas indicates the Forest Service should:

“Give preferential consideration to riparian area dependent resources in cases of unsolvable conflict. Manage to maintain or improve riparian areas to satisfactory riparian condition. Other resource uses and activities may occur to the extent that they support or do not adversely affect riparian dependent resources.”

Apache-Sitgreaves National Forests Plan, 1987.

The Forest Service asserts:

“Roads along the Blue River, Eagle Creek, and San Francisco River; have had considerable negative impacts to the fish species and populations within these drainages, along with the associated riparian habitat and corridors. The threatened loach minnow and spikedace populations have likely been impacted by in these areas, along with the Gila and roundtail chubs, which are sensitive species.”

Forest Service 2010 DEIS at 144.

The Arizona Department of Environmental Quality (ADEQ) has identified water quality standards and beneficial uses for waters of the State. Waterbodies that do not meet water quality standards with implementation of existing management measures are listed by the State as impaired under Section 303(d) of the Clean Water Act (CWA).

The 303(d) list for 2006 to 2008 includes a 13.1 mile stretch of the San Francisco River from the headwaters to the New Mexico border that is impaired because of sediment (ADEQ 2008a). The beginning and end of the stream segment is located in the Apache National Forest. Also listed is the lower stretch of Nutrioso Creek. The beginning of the segment is on the forests (ADEQ 2008a). Additionally, the Blue River is being looked at for a possible TMDL study regarding contaminants. The reach of concern runs from Strayhorse Creek to the confluence with the San Francisco River.

The San Francisco River is on the Apache National Forest running from the Forest boundary northeast. The segment from the forest boundary to its confluence with the Blue River is 303 (d) listed as impaired. All of the alternatives include Forest Service Roads 212\_1 and 8212 as ML2. The Forest Service offers no site-specific analysis of the effects of designating approximately 12 miles of road in a 303 (d) listed river. The river is impaired due to *E. Coli*, dissolved mercury and suspended sediment concentration.<sup>33</sup>

The Forest Service's analysis indicates that within the Little Colorado River Headwaters fourth level HUC watershed, which contains Nutrioso Creek, there is currently 9,000 acres of off-road travel within 300 feet of streams and 34 miles of roads within 300 feet of streams. The Forest Service fails to directly address the issue of how the alternatives will exacerbate the impairment and should do a route specific analysis and not designate routes that may exacerbate the impairment.

The State of Arizona has identified stream segments that are particularly pristine and where no degradation of water quality is allowed. These are called "Outstanding Arizona Waters" (OAW), nine of which are located in the high elevation regions northeast, east, and southeast of Mount Baldy Wilderness on the Apache National Forest (ADEQ 2003). Since no water quality degradation is allowed in the OAW stream reaches, any roads, motorized trails, or cross-country use in close proximity to these streams would be a problem due to the increased risks of contamination caused by the presence of motorized vehicles and increased sedimentation and turbidity from roads and cross-country disturbance.

Although the Forest Service lists the nine OAWs that exist on the Forests, they offer no analysis of how the alternatives will not affect the pristine character of these waters. This is particularly troublesome based on a look at the first three listed waters, Bear Wallow Creek, South Fork Bear Wallow Creek and North Fork Bear Wallow Creek are all located within the Black River fourth level HUC which currently has 54 miles of open road within 300 feet of perennial streams, the second highest number on the Forests. There is no apparent analysis of the roads to be added and acreage to be opened in the watershed in relation to successfully maintaining the recognized OAWs. Although the Watershed and Soil Resources Report offers tables of summed figures for each watershed the explanation of what this means to water quality is not apparent in the specialists report or the DEIS.

The South Fork of Bear Wallow Creek is within close proximity to Forest Service road 54C and

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<sup>33</sup>Arizona DEQ. 2009. Upper Gila Watershed, Chapter 2 in Status of Ambient Surface Water Quality in Arizona. 40 p.

54C1. Both of these routes are within the watershed of the South Fork of Bear Wallow Creek and would be open in alternatives B, C, D and E. The Forest Service must provide site-specific analysis to demonstrate that designation of these routes as open to motorized vehicles will not adversely affect its OAW status. None of the current alternatives

Hay Creek is an OAW listed river. Alternatives B and D would open Forest Service 72J which crosses Hay Creek road to all motorized vehicles as ML2. The Forest Service fails to acknowledge this in their comparison of alternatives and fails to offer site-specific analysis of how they would allow travel on this route without adversely affecting its OAW status.

Snake Creek is an OAW listed river. Alternative B, C and D propose no change from ML2 for Forest Road 25D which crosses Snake Creek. The Forest Service fails to acknowledge this in their comparison of alternatives and fails to offer site-specific analysis. We support the closure of 25D as proposed in alternative E.

The Forest Service must establish that its actions are consistent with water quality standards, and the protections afforded by water quality standards, by coordinating compliance with water quality standards with Agency's substantive NFMA duty to protect water resources. 33 U.S.C. § 1313. We request that the agency do a route specific route specific analysis for routes in these watersheds to determine if these routes will exacerbate the impairment by sediment and prohibit routes that do so. This analysis should also show how the water quality standards in the Forest Plan are being complied with.

The Forest Service recognizes that:

“Road closures would be beneficial to water quality if the roads were properly decommissioned and well maintained after closure. A well-maintained, closed road system would result in less sediment from road surface erosion. Roads not proposed for designation as a motor vehicle route in the project area may have long-term adverse effects on water quality if they are not properly maintained.

Forest Service 2010 DEIS Fisheries Report at 25. The Forest Service fails to analyze this aspect of the project when addressing water quality issues for the alternatives. The Forest Service does not address the myriad roads to remain on the ground in its analysis of impacts for each of the alternatives in the soils and watershed section.

### **E. Noise**

Because only changes to the designated system are considered in the noise impacts analysis, the Forest Service has only analyzed the impacts of the reduction in the number of motorized routes in the forests, leading to the false impression that all alternatives will have minimal impact on wildlife or other forest visitors. The impacts of the use of the proposed designated systems are not adequately analyzed. It is critical, given that quiet is a “major use” of the forests, that the impacts of the designated route system be properly analyzed to allow the Forest Service to identify areas on the forests in need of fewer motorized routes to protect quiet experiences and wildlife habitat. Forest Service 2010 DEIS Noise Specialist Report at 6.



There is no evidence presented to support the statement that “much of the forests remain relatively quiet with little or no human-caused noise” in the current situation given that motorized use of the forests is currently allowed and occurs on the majority of the forests. Forest Service 2010 DEIS Noise Specialist Report at 11. There is no description of what “relatively quiet” means or what it is relative to.

While it is true that the Forest Service does not have authority to change noise patterns on non-federal lands, the Forest Service can and should manage noise on federal lands to mitigate for outside sources of noise to provide quiet recreational experiences and protect wildlife from noise impacts.

The five areas (459 acres) of open motorized areas are located within the Mexican gray wolf Experimental Population Area Boundary and the Forest Service acknowledges that “[n]oise disturbance and human presence is likely to cause wolves to avoid these areas” but in the same paragraph states that because of the “expected high disturbance levels in these areas, it is expected that designation of these areas for motorized use will have few, if any effects” on wolves. Forest Service 2010 DEIS Wildlife and Rare Plants Specialist Report at 3.

It is unclear what this statement means: “When considered in a comparative fashion across all alternatives, it can be assumed that noise associated with these routes will be less than measureable, given the amount of surrounding area, which will dilute audibility.” Forest Service DEIS 2010 Noise Specialist Report. This statement occurs repeatedly throughout the report and is applied to all alternatives. It appears that because the forests are vast the noise associated with ORV use on routes is discounted and considered “less than measureable.” Please clarify what the above referenced statement means.

The noise analysis fails to consider ORV events, such as the Whiplash ORV race or the ATV Outlaw Jamboree. We have provided links to two videos and attached a picture of the recent Whiplash ORV race as Appendix BB. These videos and pictures demonstrate the level of noise associated with these types of events and the fact that the participants do not stay on designated or approved routes. The Forest Service has failed to consider the impacts of these events to other forest users or to wildlife. The Forest Service must analyze how these types of events affect forest resources in a supplemental DEIS for this project.

The Whiplash Event was held in September 2010. The Whiplash Off-Road event is permitted along a 25 mile course. This course is primarily along Forest Service roads intended for a low rate of speed. What is not considered in the permitting process, and should be considered in the SDEIS for this project is the rate of speed at which the participants travel. In addition to noise impacts, there is evidence of damage to roads, adjacent vegetation, and drainages. Spectators and others are not restricted to designated roads.

<http://www.youtube.com/watch?v=F7eYk2PGTto&NR=1> and

[http://www.youtube.com/watch?v=3xKJ4Xo\\_q0](http://www.youtube.com/watch?v=3xKJ4Xo_q0) are links to the two videos which illustrate this point. This event and others like it should be reviewed in light of the use of the area for camping, sewage disposal, appropriate travel, and collateral resource damage along with noise impacts.

## F. Cumulative Effects

By not identifying and considering the environmental impacts of the entire transportation system and other authorized Forest Service activities or large natural disturbances, the Forest Service fails to properly analyze cumulative impacts for this project. As defined by the CEQ regulations:

“Cumulative impact” is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

40 C.F.R § 1508.7. In the context of travel management planning, courts have held that proposals to designate additional routes for motorized recreation must be viewed in light of the entire transportation system. In other words, the impacts of all routes must be analyzed:

Within the NEPA scheme, any proposal adding to this ORV system . . . must be examined in light of the entire existing system." *North Cascades Conservation Council*, 98 F. Supp. 2d 1193, 1198 (W.D. Wash 1999). It also still holds true that "the impact of the existing system, and whether it can bear an increase in use, has never been carefully considered," and that "[w]ithout examining the ORV trail system, the Forest Service cannot meaningfully measure cumulative environmental impacts in the fashion that NEPA requires." *Id.* at 1199.

*The Mountaineers v. USFS*, 445 F. Supp. 2d 1235, 1248 (W.D. Wash 2006).

The Forest Service failed to meet this basic requirement of NEPA. Because the DEIS places existing routes outside of its impacts analysis, and because the Forest Service could not (or would not) provide any documentation of the NEPA analysis that had been completed for the existing routes as we requested in our scoping comments, it seems evident that few existing routes have ever been subject to NEPA analysis for impacts to the natural and cultural resources or climate change, and their cumulative effects have never been considered.

The transportation system was created in a piecemeal fashion over many years and the Forest Service should have taken a hard look at the cumulative effects of its road system in this process. Existing motorized routes, both system and unauthorized, have negative impacts to natural resources and will continue to cause resource damage that, when taken with other Forest Service actions and existing routes that remain on the ground even if they are not designated as open to motorized use, are cumulatively significant. Even routes that were subjected to NEPA analysis when they were built must now be reanalyzed for their cumulative effects on the landscape. This is especially important in light of our concerns regarding the baseline we raise above.

The cumulative impacts analysis failed to consider other authorized activities that cause impacts to resources such as domestic livestock grazing and forest thinning activities.

The cumulative impacts analysis is also deficient with respect to the impacts from illegal motorized recreational use. Even though the Forest Service has decided not to designate many miles of user-created roads, these routes and their associated impacts have not disappeared. Routes that were not incorporated into the system and have not been obliterated will undoubtedly continue to experience illegal use and continue to have negative consequences for the environment. Even if illegal use does not continue, the physical presence of the route on the ground still has an impact on the resource. The Forest Service must consider the cumulative impacts of the illegal use of these routes in addition to the use of the additional system routes designated in this Project. *See Sierra Club v. Bosworth*, 352 F. Supp. 2d 909 (D. Minn. 2005).

In addition, the cumulative impacts analysis is deficient because there is no consideration that there are likely to be new, more powerful, and louder types of motorized recreational use in the future. For example, more powerful ORVs would have a greater capacity to cause soil erosion, which has impacts to water quality.

Because the Forest Service failed to consider the environmental impacts and cumulative effects of the entire transportation system and other authorized Forest Service activities or large natural disturbances the DEIS is deficient under NEPA. The Forest Service must correct this deficiency in the coming analysis. For all of the resources impacted by this project, the cumulative impacts of the Forest Service's actions must be viewed as a product of: (1) the baseline impact caused by the pre-existing designated route system; (2) the added impact caused by illegal user-created routes, over time; (3) the short and long-term impacts caused by the persistence of all of these routes on the landscape now; (4) the impacts caused by lawful use of the designated route system coupled with potential unlawful use of the undesignated route system; and (5) the impact caused by past, present, and reasonably foreseeable future actions. Only by combining the past, present, and future impacts of illegal use with the impacts of authorized road use (on federal and non-federal lands) can the true impacts of this Project be evaluated and understood.

## **G. Air Quality and Fugitive Dust**

### **A. Air Quality**

The assumptions used in the Air Quality analysis are invalid.

First, the analysis is based purely on the number of miles of roads that are open to motorized uses. This ignores the impacts to air quality from the thousands of miles of closed roads that will remain on the ground indefinitely. It also ignores the reality that it is not simply the number of miles available for motorized travel, but the amount of travel occurring on the routes that impacts air quality. As stated in the Air Quality Specialist report at page 9, the “impacts to air quality from vehicular activity on the Forests are directly related to the *number of miles that the vehicles travel*” and “while there is an *obvious relationship* between the *vehicle miles traveled* and *air pollution* from dust and exhaust, there is no direct relationship between mileage of available roads and actual miles traveled.” (Emphasis added.) The error of this invalid assumption is

multiplied because the direct impacts are determined by calculating a percent change in number of miles of open motorized routes and “indirect impacts will examine the effects of action taken in the alternative that may alter the number of VMT” (vehicle miles traveled), despite the fact that the number of miles of road open for motorized use has been identified as having no direct relationship to the number of miles traveled. Forest Service 2009, Air Quality Specialist Report at 10.

Second, the assumptions used for this qualitative approach include assuming that:

- 1) all roadway characteristics are identical;
- 2) all vehicle speeds are comparable;
- 3) all vehicle types are identical;
- 4) the number of vehicles per miles is identical for all roadways/trails; and
- 5) no new road construction occurs under any alternative.

Roadway characteristics are not identical and the characteristics of the route will determine the speed, type and number of vehicles on the route. ML2 routes are used generally for high-clearance vehicles, with minor traffic and low speeds. Forest Service 2005 at 31. ML3 routes are generally driven by passenger cars at low speeds, may be surfaced with native or processed material, can have low to moderate traffic volume and washboarding may occur. *Id.* at 19. The materials used to surface ML3 routes can contribute to or reduce the volume of dust, depending on the material, the length of time the material has been on the road surface, and the volume of traffic on the route. “Travel on unsurfaced roads can substantially increase local atmospheric concentrations of fine PM unless those roads are treated for dust abatement. Surfaced roads, where cinders and sand are applied to facilitate traction during icy conditions, can result in significant short-term dust once the roads dry out.” Forest Service 2009 at 3. In addition, “[d]riving all terrain vehicles (ATVs) and other motor vehicles on dirt roads on the Forests will...become a more important potential source of visibility impairment.” Forest Service 2009 at 4.

Vehicle types are not identical. The types of tires used on ORVs are more likely to displace dust, as is the way ORVs are used. This is especially true for all-terrain vehicles which have very knobby tires that often spin in the roadway to proceed up steep inclines. The type of vehicle driven will determine the speed the vehicle is comfortably driven at (passenger cars will proceed much more slowly over a washboarded route than an ORV.) ORVs are known for sending large quantities of dust and particulates into the air (Baldwin 1970, Kasnitz and Maschke 1996, Kockelman 1983) and this dust and particulate matter poses a “serious health risk” including impaired lung function, increased emergency room visits, and increases in mortality. Kasnitz and Maschke 1996. One two-stroke ORV emits as much hydrocarbon pollution per mile as 118 passenger cars and “cleaner” four-stroke engines emit more than seven times the level of carbon as new cars.” Fussell 1997, Sluder 1995, and Killman *et al.* 1973.

While no, or few, new roads will be physically constructed or cut into the landscape, the impacts of all existing user-created routes have never undergone NEPA analysis. Therefore all user-created routes that are included as part of any action alternative should have been analyzed as a new route. We have addressed this fully in the section above on user-created routes and ask the Forest Service to review that section once again.

The Forest Service acknowledges that there “are many factors that determine the total emissions of each of the pollutants” analyzed in the DEIS, including vehicle speed, weight, type; number of wheels; vehicle miles traveled; and road surface characteristics. Forest Service 2009 at 9. It is therefore inconsistent, arbitrary and capricious for the Forest Service to analyze the impacts of the proposed motorized route system on an impacts analysis that ignores these factors.

## B. Fugitive Dust

Fugitive dust (mainly composed of lightweight soil particles, including silt and clay) kicked up by motorized vehicles and emissions from vehicle engines are both concerns regarding air quality in the planning area. Fugitive dust suspended in the air has the potential to impact more total area than any other impact of roads (paved or unpaved) and it can have significant effects on ecosystems and wildlife habitat.<sup>34</sup> Dust is created and raised into the air as motorized vehicles travel on unpaved roads and through proposed dispersed camping and big game retrieval areas and is then carried along traffic created wind currents and dispersed along roadsides. Once soil surfaces within dispersed camping areas and along Forest Service roads are disturbed, wind erosion may increase the amount of debris flow.<sup>35</sup> An example of fugitive dust plumes caused by OHV traffic is documented in 1973 satellite photos. These photos show six dust plumes in the Mojave Desert covering more than 1,700 km<sup>2</sup> (656.2 mi<sup>2</sup>). These plumes were attributed to destabilization of soil surfaces resulting from OHV activities.<sup>36</sup> In a study prepared by Walker and Everett, along Alaskan roads heavily traveled by various types of vehicles, they found that dust had buried mosses and very low-statured vegetation in the 10-m-wide area adjacent to each side of the road; dust blankets measured up to 10 cm (3.9 in) deep.<sup>37</sup>

Dr. Jane Belnap of the United States Geological Survey recently gave a presentation to the Colorado Water Conservancy District.<sup>38</sup> Dr. Belnap’s presentation addressed the connection between increased temperature, disturbance, invasive species and dust. This presentation focused much attention on the impacts from ORVs and noted the cycle of increasing temperatures, which increases dust, which is exacerbated by ORVs, which increases the effects of climate change (temperature increases) and the key indicator of these problems being earlier snowmelts. Dr. Belnap also cited dust concerns in her testimony at congressional hearings on June 5, 2008. Of particular concern is the amount of dust that results from motorized routes, which settles upon snow pack and alters the melt rate which, in turn, alters the availability of warm season infusion of water into streams and lakes, when such water is critical to wildlife. We have attached the Senate oversight hearing testimony as Appendix S and ask that the Forest Service specifically review pages 3-7, and also pages 14, 18, 19.

When coarse particulates (PM<sub>10</sub>) are inhaled, they can affect the heart and lungs and increase respiratory symptoms, irritation of the airways, coughing, breathing difficulty, and more. The elderly, children, and those with respiratory or other health issues are at greatest risk relative

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<sup>34</sup> Forman et al., 2003; Westec, 1979.

<sup>35</sup> Lovich and Bainbridge 1999.

<sup>36</sup> Nakata et al., 1976; Gill 1996.

<sup>37</sup> Walker and Everett 1987.

<sup>38</sup> PowerPoint presentation given September 18, 2009 at the Colorado River Water Conservancy District seminar, attached as Appendix V and available online at [http://www.crwcd.org/page\\_305](http://www.crwcd.org/page_305).

to particulate pollution. Recently, a group of doctors in Utah cited increased dust due to climate change, which, as noted above, is exacerbated as a result of ORV use on fragile soils, as a top public health concern in the arid West. *See* Appendix T, Public Health Climate Change. Recently, a study was released in California clearly demonstrating that ORV activity is a major contributor to high PM concentrations in nearby airsheds because of destruction of soil crusts and vegetation. Craig, Cahill, and Ono 2010. This study is attached as Appendix U.

While dust is bad for the health of people, it can also affect plants and animals. The Forest Service should address the impact of fugitive dust on vegetation, including the disruption of photosynthetic and respiration processes, leading to reduced plant growth, reproduction, and survivorship. It should also evaluate the impact on species such as Arizona willow and Arizona Ash. This information is also necessary for understanding the likely contributions to regional climate change caused by this plan.

The Forest Service must comply with all federal, state, and local environmental laws, including that it must maintain “air quality at a level that is adequate for the protection and use of National Forest System resources and that meets or exceeds applicable Federal, State and/or local standards or regulations.” 36 C.F.R. § 219.27(a)(12). This means, for example, that the Forest Service may not permit activities that will result in exceedances of national ambient air quality standards (NAAQS), prevention of significant deterioration (PSD) increment limits, air quality related values (AQRVs), and standards for hazardous air pollutants. For instance, the Forest Service must protect the current status of air quality related values [AQRV's] in Class I Airsheds. The Clean Air Act itself also requires that the Forest Service not license, permit, approve, engage in, or support in any way an activity that will not conform with a state implementation plan (SIP). 42 U.S.C. § 7506(c)(1). State implementation plans are developed in order to achieve NAAQS and to observe PSD increment limits. *See id.* § 7410. Conformity with a SIP includes eliminating violations of NAAQS and ensuring that activities the Forest Service approves will not violate air quality standards such as NAAQS and PSD increment limits. Finally, NEPA requires that the Forest Service understand the environmental impacts of its actions, including analysis of air pollution in order to understand if the plan will comply with federal and state air quality standards, as required by Forest Service regulations and the Clean Air Act.

The Forest Service has made no attempt to calculate the amount of dust that will be generated by the proposed open road system or any alternative. The Forest Service should, at the very least, analyze the amount of dust that will be generated from the road system by using modeling and sample routes to inventory the particulate matter pollution for PM<sub>10</sub> which will be generated by fugitive dust from ORVs on designated routes. This has been done for Bureau of Land Management projects (the West Tavaputs Plateau Natural Gas Full Field Development Plan, DEIS February 2008 and the Enduring Resources' Saddletree Draw Leasing and Rock House Development Proposal, FEA December 2007.)

The use of ORVs on designated routes will also generate emissions from vehicle engines. Currently, many ORVs in use run on 2-stroke engines, including off-highway motorcycles and ATVs, which do not burn fuel completely and produce significant amounts of airborne contaminants, including nitrogen oxides, carbon monoxide, pollutants that contribute to the

formation of ozone, aldehydes, and extremely persistent polycyclic aromatic hydrocarbons (PAH), including the suspected human carcinogen, methyl tert-butyl ether (MTBE). The Forest Service must quantify all emissions from ORVs in order to fully understand their likely impact on air quality in the planning area. The Forest Service must include a comprehensive inventory of emissions generated by the vehicles traveling these routes and conduct management activities so that air quality will be equal to or better than that required by applicable federal, State, and local standards or regulations. Finally, to the extent these calculations reveal ORV use is contributing or will degrade air quality in the area, the Forest Service must reduce the amount of ORV use allowed on the Forest and locate routes on which ORVs can travel in such a way as to minimize contributions to air quality problems.

The Mt. Baldy Class I airshed is located in the Apache-Sitgreaves National Forests and the Grand Canyon National Park, Petrified Forest National Park, Mazatal/Sycamore Canyon/Pine Mountain/Mt. Baldy/Supersition/Sierra Ancha Wilderness Areas and the Yavapai-Apache Reservation airsheds are within 100 miles of the forests. Forest Service 2009 at 7. The impacts to these airsheds from the proposed route systems in all alternatives are not adequately analyzed.

Despite the fact that the DEIS acknowledges that the majority of roads on the Apache-Sitgreaves National Forests are unpaved, high clearance roads, the Forest Service failed to conduct a full-scale quantitative analysis of the air quality impacts in the planning area or model these impacts.

As part of the “hard look” requirement, NEPA demands that the Forest Service determine and accurately describe baseline air quality conditions, so that it, as well as the public, can fully understand the implications of the existing and proposed travel system. Without preparing near-field, far-field, and cumulative air quality analyses, the Forest Service will not understand the level of the pollutants the road and trail network and its use will emit, thereby violating NEPA and its requirement that the Forest Service understand the environmental impacts of its plan. In addition, the Forest Service must model pollution concentrations and dispersion in order to understand if this plan will comply with federal and state air quality standards and protect air quality related values.

The Forest Service must prepare a comprehensive emissions inventory, which includes fugitive dust emissions, and then model these figures in near-field, far-field, and cumulative analyses. Without doing so, the Forest Service cannot know what impact these activities will have and whether it is complying with federal and state air quality standards.

A recent report on the Colorado River Basin published in the Sept. 20, 2010 issue of the journal *Proceedings of the National Academy of Sciences (PNAS)* by co-authors are Painter; Jeffrey Deems of the National Snow and Ice Center in Boulder, Colo.; Jayne Belnap at the U.S. Geological Survey Southwest Biological Center in Moab, Utah; Alan Hamlet of the University of Washington; Christopher Landry of the Center for Snow and Avalanche Studies in Silverton, Colo.; and Bradley Udall of the University of Colorado-NOAA Western Water Assessment, indicate that dust from grazing and other disturbances are mobilized by winds and arid conditions, the dust blows eastward from the semi-arid regions of the U.S. Southwest. Small dark particles of the dust fall on snow pack in mountains, ultimately affecting the entire Colorado River watershed resulting in a five- to seven-fold increase in dust loading since the mid-to-late

1800s. The snow cover became darker and lasted less long, reducing or changing the timing of runoff. We have attached this study as Appendix W.

## **H. Fire**

It is well-documented in the scientific literature on the subject that roads are a dispersal vector for invasive, non-native species and noxious weeds. Roadsides provide an enhanced habitat for plants due to water run-off, and dense populations, particularly of grasses, are often found in close proximity to roads. The heat from exhaust systems and sparks caused by tire-dislodged rocks hitting metal or other rocks can readily ignite wildland fires in dry periods. Dense vegetative growth along roads also reduces their value as fire breaks.

We recommend the review of Arienti *et al.* 2009, a report on road density correlated with increased fire incidence. This report is attached as Appendix X. The paper, found in the International Journal of Wildland Fire 2009, quantifies the influence of anthropogenic linear disturbances (roads) on fire ignition, specifically correlating lightning strikes with linear events. The researchers found a positive correlation between road density and lightning fire frequency. We recommend the Forest Service reduce route densities whenever possible to reduce the risk of fire and take into consideration the increased fire risk along designated roads and trails and the potential consequences of designating roads in certain high-risk areas.

## **I. Inventoried Roadless Areas (IRAs)**

With respect to IRAs, the Forest Service must evaluate two distinct types of effects resulting from the motorized travel plan. First, the supplementary or FEIS must “disclose that significant roadless areas will be affected [under the motorized travel plan] and take the requisite ‘hard look’ at the environmental consequences of that fact,” including analyses of the plan’s effects on “water resources, soils, wildlife habitat, and recreation opportunities.” *Lands Council v. Martin*, 529 F.3d 1219, 1230, 1232 n. 7 (9th Cir. 2008); *Smith v. U.S. Forest Serv.*, 33 F.3d 1072, 1078 (9th Cir. 1994); *Or. Natural Desert Ass’n v. Bureau of Land Mgmt.*, 531 F.3d 1114, 1137-38 (9th Cir. 2008). In other words, the Forest Service must carefully analyze and disclose impacts (i.e., take a “hard look” under the requirements of NEPA described above) to “Roadless Area Characteristics,” which are “[r]esources or features that are often present in and characterize inventoried roadless areas, including:

- 1) High quality or undisturbed soil, water, and air;
- 2) Sources of public drinking water;
- 3) Diversity of plant and animal communities;
- 4) Habitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land;
- 5) Primitive, semi-primitive non-motorized and semi-primitive motorized classes of dispersed recreation;
- 6) Reference landscapes;
- 7) Natural appearing landscapes with high scenic quality;
- 8) Traditional cultural properties and sacred sites; and
- 9) Other locally identified unique characteristics.”



36 C.F.R. § 294.11. Second, the Forest Service must disclose the effect of designating motorized routes in roadless areas on potential wilderness designation. *Lands Council v. Martin*, 529 F.3d 1219, at 1230 (9th Cir. 2008). The “possibility of future wilderness classification triggers, at the very least, an obligation . . . to disclose the fact that development will affect a 5,000 acre roadless area” or a roadless area of “sufficient size as to make practicable its preservation and use in an unimpaired condition.” *Smith v. U.S. Forest Serv.*, 33 F.3d 1072, at 1078 (9th Cir. 1994).

The Forest Service failed to take a hard look at the effects of motorized uses in inventoried roadless areas (IRAs). While the DEIS and the supporting documents contain some general statements regarding the effects of motorized routes on roadless areas, the analysis never touches down at the IRA or route level. The benefits of roadless areas for water, wildlife and recreation have been extensively documented by the State of New Mexico and include, generally:

- Providing unique, high quality hunting and fishing opportunities. This is because
- they serve as core habitat areas for game animals and cold-water fish species. They are relatively undisturbed and remote due to the absence of roads.
- Containing essential habitat for more than 2,150 species of threatened, endangered, proposed, and sensitive plant and animal species.
- Furnishing unique opportunities for human solitude and reflection.

NDGF 2006.<sup>39</sup> However, the DEIS does not examine the potential environmental effects any particular roadless areas or routes.

The Forest Service failed to take a hard look at the impacts of the designations on wildlife and wildlife habitat, as well as a host of other resources. Despite the fact that many conservation groups and individuals alerted the Forest Service to the potential effects on wildlife, as well as the fact that the Forest Service generally acknowledges that fewer motorized trails leads to improved, unfragmented habitat and security areas, the Forest Service did not take a hard look, let alone any look, at the specific environmental effects of motorized designations on IRAs in its NEPA documents. In our scoping comments, we explicitly alerted the Forest Service that IRAs were a significant issue and we even identified the routes in IRAs that needed site-specific analysis. Center for Biological Diversity *et al.* 2008.

Because the Forest Service failed to take a “hard look” at any of the environmental effects and recreational conflicts issues associated with designating motorized trails in IRAs, the agency violated NEPA.

## **J. Wilderness Areas and Wilderness Study Areas**

The Forest Service failed to take any look at the effects that motorized designations could have on Wilderness Areas and potential wilderness designation of IRAs.

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<sup>39</sup> Wildlife, Habitat and Hunting: New Mexico’s Roadless Areas. Mark L. Watson, Compiler - W. Mark Gruber, Ed. New Mexico Department of Game and Fish Santa Fe, NM May, 2006

The Forest Service is aware that the designations made in this travel planning process could affect the success of future wilderness designations, but it failed to recognize this fact in any way in its analysis. There is no analysis of the impacts motorized dispersed camping corridors will have on these areas. There is no analysis of impacts to citizen proposals for wilderness areas. Simply put, there is an absolute lack of any analysis of the impacts of the motorized system on these areas.

Under all alternatives motorized routes will be open to public use in non-motorized areas. Forest Service 2010 Recreation Specialist Report at 57. The Forests have identified 50 miles of open motorized routes in closed areas and would reduce this number to 43 miles in Alternatives B and D, leave the number at 50 miles for Alternative C, and reduce the number of miles by just 27 miles in Alternative E. *Id.* There is no alternative presented that would eliminate all motorized routes in these areas, as specifically requested in the scoping letter of Center for Biological Diversity *et al.*, 2008 at 25.

### **K. Wild & Scenic Rivers**

The Forest Service recognizes that "in an era of climate change, wild and scenic rivers on the national forests, with relatively little direct human impact, provide ecosystem connectivity along elevational gradients and serve as baseline watersheds for scientific study." Forest Service 2010 DEIS at 40.

### **L. Non-Native Noxious Invasive Plants**

There is a high likelihood that use of all Forest Service routes will increase with increasing population, particularly in the Southwest. It seems extremely likely, given current knowledge that increased use of existing and new routes will result in increased introduction and dispersal of non-native invasive noxious species of plants. Invasive species are particularly adept in achieving seed dispersal and out-competing other species for available life-sustaining resources. Moreover, current models for future climate in the American Southwest predict not only rising temperatures but also reduced winter rainfall. See Weiss and Overpeck, 2005.

On the Apache-Sitgreaves National Forests, the riparian areas have the greatest number of recorded non-native species (DEIS 2010 Vegetation Specialist Report at 38) and motorized routes are the most likely vectors for non-natives (*Id.*). Noxious weeds are expected to occur in higher densities along roadways, in campgrounds, recreational motorized trails and riparian areas. *Id.*

There is no analysis of how areas effected by fire (such as the Rodeo-Chediski fire) will be effected by cross-country travel for MBGR or dispersed camping and the spread of invasive weeds.

### **M. Wildlife**

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<sup>40</sup> USDA Forest Service. 2010. National Roadmap for Responding to Climate Change. 30 pp

One of the most well-documented impacts of climate change on wildlife is a shift in the ranges of species.<sup>41</sup> As animals migrate, landscape connectivity will be increasingly important.<sup>42</sup> Decommissioning roads in key wildlife corridors will improve connectivity and be an important measure to increase the resilience of wildlife to climate change.

Travel Management Planning must consider best practices for managing wildlife. Routes in sensitive habitat, in critical habitat for endangered species, in riparian areas, and wildlife corridors must be protected. Conservationists have devoted considerable time identifying crucial habitats within the Apache-Sitgreaves National Forests for wildlife. GCWC 2008; GCWC et al. 2008; GCWC 2010 et al. 2010. Damage occurs from both directed effects of ORV use and from damage to habitat.

### **Best Management Practices (BMP) for Wildlife**

We recommend that the Forest Service use the “Best Management Practices for Off-Road Vehicle Use on Forestlands: A Guide for Designating and Managing Off-Road Vehicle Routes.” These BMPs represent a comprehensive approach to travel planning and could help the Forest Service in making final route decisions. In fact, Jim Furnish, former Deputy Chief in the Clinton administration endorsed these scientifically grounded BMPs. Where the A-S suggests alternatives that do not comply with these BMPs, we would like an explanation as to why they were not followed, especially in light of Executive Order 11644 (as amended by E.O. 11989) that directs the agency to minimize impacts to the environment and other users when making designations. We have attached these BMPs as Appendix H and hope that you find them useful. We have excerpted several sections that are particularly useful for making wildlife related decisions.

#### **Planning and Decision-Making BMPs for Wildlife**

- Set levels of acceptable disturbance that are compatible with maintaining species viability or recovery.
- Locate routes in areas that do not have critical habitat (formally designated or just important for survival) for sensitive, threatened, and or endangered wildlife species.
- Locate new routes where they are unlikely to significantly affect the populations of important native wildlife species specifically regarding reproduction, nesting, or rearing.
- Do not locate routes inside buffer distances for nesting sites shown in Table 2.
- Locate routes as far as possible, but a minimum of 150 ft., from natural caves, tunnels, and mines where bat nurseries are commonly found.
- Locate routes in discrete, specified areas bounded by natural features (topography and vegetative cover) to provide visual and acoustic barriers and to ensure that secure habitat is maintained for wildlife.
- Locate routes in forest cover and not in open country. Long sight lines in open country make the visual effects of machines more pronounced.

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<sup>41</sup> Parmesan, C. 2006. Ecological and evolutionary responses to recent climate change. *Annual Review of Ecology, Evolution, and Systematics* 37: 637-669.

<sup>42</sup> Holman, I.P., R.J. Nicholls, P.M. Berry, P.A. Harrison, E. Audsley, S. Shackley, and M.D.A. Rounsevell. 2005. A regional, multi-sectoral and integrated assessment of the impacts of climate and socio-economic change in the UK. Part II. Results. *Climatic Change*, 71, 43-73.

## Implementation BMPs for Wildlife

- Survey for sensitive, threatened, and endangered animals, as well as critical habitat (formally designated or just important for survival), in ORV use areas. This survey information should be catalogued and regularly updated in a GIS database. Again, conservationists have devoted considerable time identifying crucial habitats within the ASNF for wildlife. GCWC 2008; GCWC et al. 2008; GCWC 2010 et al. 2010.
- Prohibit ORV use in critical habitat for sensitive, threatened, and endangered species.
- Prohibit ORV use in or near Mexican grey wolf denning and rendezvous areas.
- Maintain large unfragmented, undisturbed blocks of forestland where no routes are designated.
- Maintain and improve habitat security by protecting whole areas rather than individual route closures (e.g., proposed wildlife conservation areas; see GCWC 2008; GCWC et al. 2008).
- Reduce road/route density to below 1mi./mi.2 in important wildlife areas.
- Do not allow the use of ORVs off designated routes for game retrieval.
- Address recovering carnivores such as the Mexican grey wolf and mountain lion.

*Table 2. Recommended spatial nest buffer zone for selected birds of prey.*

Species	Spatial Nest Buffer Zone (ft.)	Citation
American kestrel	650	Richardson and Miller (1997)
Bald eagle	1300	Hamann et al. (1999)
Northern goshawk	1600	Jones (1979)
Sharp-shinned hawk	1600	Jones (1979)
Cooper's hawk	2000	Richardson and Miller (1997)
Prairie falcon	2600	Richardson and Miller (1997)
Peregrine falcon	2600	Richardson and Miller (1997)
Red-tailed hawk	2600	Call (1979)
Mexican Spotted owl	3000	USFWS (1995)
Osprey	4900	Richardson and Miller (1997)
Golden eagle	5200	Richardson and Miller (1997)

## 2. Endangered, Threatened, Sensitive, Game and Management Indicator Species

The Endangered Species Act (ESA) makes it unlawful for any person to “take” a listed species. Take is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct” and includes “significant habitat modification or degradation that kills or injures wildlife by impairing essential behavioral patterns, including breeding, feeding, or sheltering.” 16 U.S.C. 1532. Off-road vehicle use has been shown to cause stress in many animal species and often results in major changes in animal behavior and reduced reproductive success or survival. Joslin and Youmans 1999. Routes should not be designated where “take” of an endangered species may occur. In addition, routes should not be designated in ESA-designated critical habitat for threatened or endangered species (both aquatic and terrestrial) unless it can be shown definitively that the species and its habitat are not harmed. The Forest Service should use the best ecological data available to make recommendations for route designation with respect to each state and federal threatened, endangered, and proposed species, and

also for Forest Service Sensitive, plan Watch List, and big game, on the Apache-Sitgreaves National Forests.

Species of particular concern include the Mexican gray wolf, Gunnison's prairie dog, Mexican spotted owl, Northern goshawk, Chiricahua leopard frog, Southwestern willow flycatcher, and native fish species including warm-water fishes such as the longfin dace, speckled dace, desert sucker, Sonora sucker, and threatened loach minnow, as well as the cold-water Apache and Gila trout, among others.

In addition, conservationists have repeatedly stressed to the ASNF planning staff to consider the importance of strongly interactive species (e.g. prairie dogs, beaver, wolves, tassel-ear squirrel, and mountain lions) addressed in the recent and considerable scientific literature. Sierra Club et al. 2007; Sierra Club et al. 2009; GCWC et al. 2010.

### 3. Existing or Potential Wildlife Movement Corridors

Limiting roads in some areas of the Apache-Sitgreaves National Forests, such as the Little Creek, Paddy Creek, and along the Mogollon Rim would help protect movement between the lower elevations of the forest and the high country. Other critical linkages include Mt. Baldy - Black River Linkage, the Escudilla-Mother Hubbard Linkage, and other riparian corridors such as the watersheds of Willow Creek, Chevelon Creek, Leonard Canyon, Wildcat Canyon, West Chevelon identified in formal conservation proposal GCWC 2008; GCWC et al. 2008. The Arizona Wildlife Linkages Assessment. (Nordhaugen et al. 2006), also identified several potential linkage zones involving Apache-Sitgreaves lands: 1) Correo Crossing – Clifton US 191; 2) State Route 260 East, and 3) Mogollon Rim – Navajo Nation 22 that should be considered in the context of forest and transportation infrastructure planning.

Wildlife linkages should have a road density of no more than 0.25 mile/square mile, limited developed sites, no logging (except for restoration treatments), no vehicle or mountain bike use off of designated roads and trails, and no new road construction. Where wildlife linkages are known to intersect with main roads, linkages should include wildlife-dedicated crossing structures that allow wildlife to cross the road safely. This will be a benefit to motorist safety as well. Management guidelines in wildlife linkages should be informed by the needs of specific target species, such as the endangered Mexican gray wolf. Wildlife linkages should be targeted for habitat restoration as appropriate.

These corridors are used by many species critical to the health of the forest. TMP must close routes that threaten or significantly impair wildlife movement through critical corridors within the Apache-Sitgreaves National Forests.

#### **Wildlife Are Critical for a Healthy Forest**

- Diversity of wildlife species is critical to the health of the forest and forest resiliency.
- Habitat for threatened and endangered species must be afforded extra protection.
- Habitat for Management Indicator Species (MIS) are critical to consider in the identification of open and closed routes. By law, the ASNF must identify particularly important species to use as

MIS because “their population changes are believed to indicate the effects of management activities” (36 CFR 219.19(a)(1)).

- The 1976 National Forest Management Act (NFMA) and the 1982 National Forest System Land and Resource Management Planning Final Rule (Federal Register 2009a) direct each Forest to select “management indicators that best represent the issues, concerns, and ... recovery of Federally-listed species, provide continued viability of sensitive species, and enhance management of wildlife and fish for commercial, recreational, scientific, subsistence, or aesthetic values or uses.” Forest Service Manual (FSM) 2621.1.
- The 1982 regulations require Forest Plans to manage fish and wildlife habitat so viable populations of existing native and desired non-native vertebrate species are maintained in the planning area (Federal Register 2009a). Under the 1982 regulations, a viable population is regarded as one that has the estimated numbers and distribution of reproductive individuals to insure its continued existence, is well distributed in the planning area, and that habitat must be well distributed so that those individuals can interact with others in the planning area (Foster et al. 2010:5).
- The Forest Service Manual (FSM) defines management indicators as “Plant and animal species, communities or special habitats, selected for emphasis in planning, and which are monitored during forest plan implementation in order to assess the effects of management activities on their populations and the populations of other species with similar habitat needs which they may represent.” FSM 2620.5.
- Characteristics of species diversity include, but are not limited to, the number, distribution, and geographic ranges of plant and animal species, including focal species and species--at--risk that serve as surrogate measures of species diversity. 36 CFR 219.20 (ii). Additionally, the 1982 regulations require that “Population trends of the management indicator species will be monitored and relationships to habitat changes determined.” 36 CFR 219.19(a)(6).
- Habitat for strongly interactive species must be maintain at the highest possible level to insure ecologically effective populations. Species influence their ecosystems through such well-known processes as competition, predation, mutualism, and the alteration of physical habitat. These influences may be so strong in some cases as to alter landscapes and associated patterns of biodiversity. Species capable of exerting such ecosystem--level influences have been referred to as keystone (Paine 1969) and foundation species (Dayton 1972), ecosystem engineers (Jones et al. 1994), strongly interactive species (Soulé et al. 2003, 2005), and various other descriptors that imply functional importance. A species is strongly interactive when its absence or effective absence leads to significant changes in some feature of its ecosystem. Soulé et al. 2003. Such changes include structural or compositional modifications, alterations in the import or export of nutrients, loss of resilience to disturbance, and decreases in native species diversity. Soulé et al. 2003.

Trophic cascades require a strongly interacting species (i.e., a top carnivore) that influences the abundance and behavior of its primary prey (large herbivores), thereby indirectly affecting their temporal and spatial patterns of herbivory. In the case of the gray wolf (*Canis lupus*), this dynamic can shift an ecosystem from a state characterized by intensely browsed plant

communities, to one in which native plants can thrive and reproduce, thus providing sustainable habitats for other terrestrial, as well as aquatic, wildlife species. Beschta 2005; Ripple and Beschta 2003, 2005; McLaren and Peterson 1994; Ripple and Larsen 2000; Beschta and Ripple (2008); Hebblewhite et al. 2005; Estes and Palmisano 1974.

Numerous studies indicate that ecosystems can be profoundly altered by uncontrolled ungulate populations after large carnivores are removed or reduced below ecologically effective densities. Ripple and Beschta 2003, 2005, 2006; Beschta 2005; McLaren and Peterson 1994; Ripple and Larsen 2000; Hebblewhite et al. 2005; Beschta and Ripple 2006, 2007, 2008; Rooney and Waller 2003; Estes et al. 2010. The rarity or absence of strongly interactive species such as large carnivores leaves a functional void that can trigger linked changes leading to degraded or simplified ecosystems.

The Forest Service must identify motorized routes that are having significant negative impacts on keystone species and include action alternatives that would ensure habitat for keystone and highly interactive species is maintained at a high level to ensure ecosystem resiliency.

Recovery criteria for depleted species or populations normally are based on demographic measures, the goal being to maintain enough individuals over a sufficiently large area to assure a socially tolerable risk of future extinction. Estes et al. 2010. Demographic considerations include distribution and range, population age and sex structure, metapopulation structure and dynamics, genetic variability, unforeseen or anticipated future risks, and temporal trends in these various metrics. Morris & Doak 2002; Estes et al. 2010. Although always necessary, demographically based recovery criteria alone may be insufficient to restore the functional roles of strongly interacting species if demographic recovery occurs at a population size below that required for the species' functional role in the ecosystem to be realized. Soulé et al. 2003, 2005; Estes et al. 2010.

- ORV routes are unacceptable in areas critical for wildlife connectivity. Planning and managing for habitat connectivity on landscape and regional scales is increasingly being recognized as a valid strategy to ameliorate the negative effects of habitat fragmentation and to facilitate adaptation to climate change. Wildlife linkages provide dwelling habitat as extensions of core habitat areas; facilitate seasonal movements of various wildlife species; enable dispersal and genetic interchange within metapopulations; and allow for latitudinal and elevational range shifts with climate change.

The Western Governor's Association is currently undertaking a major initiative to develop a decision support system that identifies wildlife corridors and crucial habitats for priority species. Western Governors Association 2010. We encourage the Apache-Sitgreaves National Forests to incorporate information generated from this process (even if incomplete), as well as the Arizona State Wildlife Action Plan, Arizona's Wildlife Linkages Assessment (Nordhaugen et al. 2006), and other regional conservation plans such as the Sky Islands Wildlands Network. Foreman et al. 2000, into its planning process. Sky Islands Wildlands Network identified two terrestrial wildlife linkages on the Apache Sitgreaves: 1. Mount Baldy --Black River Linkage; and 2. Escudilla-

Mother Hubbard Linkage, which extends across the Arizona--New Mexico line. Grand Canyon Wildlands Council also identified probable wildlife corridors along the Mogollon Rim, including the north-trending Little Colorado River tributaries across the Mogollon Plateau. GCWC 2008, 2010; GCWC et al. 2008. In addition, major riparian linkages, such as along the Blue River, should be included as they often serve as linkages for both aquatic and terrestrial species.

The Arizona Wildlife Linkages Assessment also identified several potential linkage zones involving Apache-Sitgreaves lands: 1) Correjo Crossing – Clifton US 191; 2) State Route 260 East, and 3) Mogollon Rim – Navajo Nation 22 that should be considered in the context of forest and transportation infrastructure planning.

As mentioned elsewhere in this document, wildlife linkages should have a road density of no more than 0.25 mile/square mile, limited developed sites, no logging (except for restoration treatments), no vehicle or mountain bike use off of designated roads and trails, and no new road construction. Where wildlife linkages are known to intersect with main roads, linkages should include wildlife-dedicated crossing structures that allow wildlife to cross the road safely. This will be a benefit to motorist safety as well. Management guidelines in wildlife linkages should be informed by the needs of specific target species, such as the endangered Mexican gray wolf. Wildlife linkages should be targeted for habitat restoration as appropriate.

#### 4. Mexican Gray Wolf

a. The Forest Service must close roads within the Mexican gray wolf reintroduction area that increase the likelihood of human/wolf interactions.

In a discussion of threats to the Mexican gray wolf, the DEIS states "The growth of the population is a positive sign that the reintroductions were successful. Forest Service TMP DEIS at 105.)" This statement is wholly inaccurate given that the wolf population has declined or stayed stable over the past four years of annual censuses and that it has consistently not reached the level – 102 wolves including 18 breeding pairs –the 1996 EIS on reintroduction had projected would be achieved by the end of 2006. Furthermore, the statement reflects a lack of consideration of critical issues affecting the status of the Mexican gray wolf. Issues raised in the Mexican Wolf Conservation Assessment (USFWS 2010) and the recent illegal killings on the Apache-Sitgreaves National Forests, suggest the wolf population is at risk of a second extinction.

The DEIS quotes Page 105 of the *Wildlife and rare plants specialist report*. These quotes, taken as isolated statements from the Mexican Wolf Conservation Assessment, would lead one to believe that the Mexican wolf is not at risk.

*The Mexican Wolf Conservation Assessment (USFWS 2010) states that the three fundamental ecological conditions necessary for wolf habitat include large area size, adequate prey, and security from human exploitation. Roads are considered to be one form of habitat modification as they facilitate human access to areas occupied by wolves. ...Illegal shooting of wolves has been the biggest single source of mortality*



*since the reintroduction began [emphasis added]...USFWS (2010 at 9) states that currently, destruction, modification, or curtailment of habitat do not likely threaten the Mexican wolf [emphasis added.]*

However, a farther reading of the Conservation Assessment (USFWS 2010 at 14) suggest a very different picture:

*The Blue Range population, although successfully established since 1998, is not thriving. Over the last 5 years, the population's size has hovered around the halfway point of the population target of at least 100 wolves, and the number of breeding pairs (as defined by the Final Rule) has dropped to 2. Threats hindering the biological progress of the population and success of the recovery program include management and regulatory mechanisms, such as regulations associated with the internal and external boundaries of the BRWRA, and lack of an up-to-date recovery plan; illegal shooting; and inbreeding. **Although no single threat is single-handedly responsible for the delayed progress of the reintroduction or the recent decline in population size and number of breeding pairs, the cumulative effect of these threats results in a consistently high level of mortality, removal, and reduced fitness that, when combined with several biological parameters, threatens the population with failure [emphasis added].** The longer these threats persist, the greater the challenges for recovery, particularly as related to genetic fitness and long-term adaptive potential of the population.*

In response to comments, the Conservation Assessment (USFWS 2010 at 103) goes on to say:

*However, when human-caused mortality becomes excessive (i.e., leading or substantially contributing to a population decline), security from human-caused mortality becomes an ecological condition necessary for wolf habitat.*

Given that two males in the Hawks Nest Pack were illegally killed this past summer in the Apache-Sitgreaves National Forests (see below for listing of other illegal killings on A-S), and in consideration of the multiple previous killings of wolves on the forests, security **from human-caused mortality** has reached the point that specific routes in the recovery area need to be permanently closed for the protection of the species. When these illegal killings are considered in the context of a continuing decline in the population (a drop of 19% from the 2008 to the 2009 population count and a pup survival rate of 25% in 2009), the species is at risk. (The DEIS quoted the population numbers for 2008 and not from 2009 at 105.)

## b. Mexican Gray Wolf Home Ranges on the Apache National Forest

The recovery of the Mexican wolf, the most endangered mammal in America, is constantly threatened by illegal killings. Most of these criminal acts are facilitated by access provided by high road density within establish wolf pack territories. Closure and restricted administrative

access would significantly contribute to fulfillment of the Forest Service’s obligation to protect this endangered species.

**Table 6. Route Closure Recommendations to Protect Mexican Wolves**

<i>Route</i>	<i>Wolf Pack Affected</i>	<i>Recommendation</i>
New 8	Paradise	Close and Decommission
61C	Paradise	Close and Decommission
61F	Paradise	Close and Decommission
61G	Paradise	Close and Decommission
61Q	Paradise	Close and Decommission
64A	Paradise	Close and Decommission
64F	Paradise	Close and Decommission
65E	Paradise	Close and Decommission
65J	Paradise	Close and Decommission
67	Paradise	Restrict Access
117C	Paradise	Close and Decommission
117G	Paradise	Close and Decommission
117H	Paradise	Close and Decommission
118A	Paradise	Close and Decommission
118B	Paradise	Close and Decommission
118C	Paradise	Close and Decommission
583	Paradise	Close and Decommission
583B	Paradise	Close and Decommission
8262	Paradise	Restrict Access
8262C	Paradise	Close and Decommission
8447	Paradise	Close and Decommission
8449	Paradise	Close and Decommission
8451	Paradise	Close and Decommission
8455A	Paradise	Close and Decommission
8457B	Paradise	Close and Decommission
8464	Paradise	Close and Decommission
8465	Paradise	Close and Decommission
8471	Paradise	Close and Decommission
8530	Paradise	Restrict Access
8553	Paradise	Close and Decommission
8555	Paradise	Close and Decommission
8559	Paradise	Close and Decommission
8577	Paradise	Close and Decommission
8578	Paradise	Close and Decommission
8666	Paradise	Close and Decommission
8667	Paradise	Close and Decommission
8671	Paradise	Close and Decommission
8672	Paradise	Close and Decommission

8674	Paradise	Close and Decommission
8684	Paradise	Close and Decommission
90	Hawk's Nest	Restrict Access
113K	Hawk's Nest	Close and Decommission
288	Hawk's Nest	Close and Decommission
289	Hawk's Nest	Close and Decommission
586	Hawk's Nest	Restrict Access
586B	Hawk's Nest	Close and Decommission
586C	Hawk's Nest	Close and Decommission
8001	Hawk's Nest	Close and Decommission
8002	Hawk's Nest	Close and Decommission
8004	Hawk's Nest	Close and Decommission
8004A	Hawk's Nest	Close and Decommission
8007	Hawk's Nest	Close and Decommission
8007A	Hawk's Nest	Close and Decommission
8045	Hawk's Nest	Close and Decommission
8070D	Hawk's Nest	Close and Decommission
8703	Hawk's Nest	Close and Decommission
87004	Hawk's Nest	Close and Decommission
8706	Hawk's Nest	Close and Decommission
8739B	Hawk's Nest	Close and Decommission
8808	Hawk's Nest	Restrict Access
8809	Hawk's Nest	Restrict Access
8815	Hawk's Nest	Close and Decommission
8820	Hawk's Nest	Close and Decommission
8912	Hawk's Nest	Close and Decommission
8912A	Hawk's Nest	Close and Decommission
25B	Rim	Close and Decommission
8793	Rim	Close and Decommission
FR25G. Close south of FR555.	Bluestem	Close and Decommission
FR8786 and "new22": Close. If FR25G is closed at FR555, they will be inaccessible	Bluestem	Close and Decommission
FR8780: Close at FR25.	Bluestem	Close and Decommission
FR8781: Close at FR25.	Bluestem	Close and Decommission
FR25H: Close south of Caldwell Cabin.	Bluestem	Close and Decommission
FR555: Close between access road to P. S. Knoll Lookout and FR25H.	Bluestem	Close and Decommission

### c. Road Impacts on Mexican Wolf Packs on the Apache-Sitgreaves National Forests

#### ***Paradise Pack***

The home range of the Paradise pack includes a section on the northeast portion of the Fort Apache Indian Reservation. That portion of their home range on the Apache NF includes the entire “wing” of the forest that abuts the reservation on the southwest and the Sitgreaves NF on the west. The area is located north of AZ Hwy 260. Green’s Peak is a major feature in this section of the forest. With the exception of a small roadless area surrounding St. Peter’s Dome, this area apparently suffers from a very high road density.

Illegal shootings of Mexican gray wolves in this area (not from the Paradise pack, which formed after 2003):

- F645, Saddle pack disperser, 11/5/01
- M630, Lupine pack disperser, 12/2/01
- M639, Cerro pack, 3/9/03
- F644, Cerro pack, 5/25/03

#### ***Hawk’s Nest Pack***

The home range of the Hawk’s Nest pack begins approximately where the home range of the Paradise ends on the southeast. Hawk’s Nest wolves only rarely range north of Hwy 260. They generally stay east of a north-south line running through Greer, AZ and the Big Lake Recreation Area, and west of US 180/191. On the south they sometimes frequent Williams Valley, and may be found anywhere along FR249, from Williams Valley to Three Forks to Big Lake.

During the past three breeding seasons, AF1110 has denned within about a four-mile radius of Crosby Crossing. This year, both AM1044 and two-year-old male pack member M1189, were illegally shot in the general vicinity of that landmark.

Two groups of roads are especially problematic for the Hawk’s Nest pack (or any wolf pack using the area surrounding Crosby Crossing: the road network north of Crosby Crossing and west of FR285, and the road network including and branching off of FR586, which starts at FR88 and dead-ends about five miles to the south, a short distance north of Three Forks. These road networks bring vehicular traffic, with the attendant threat of illegal killings and harassment, into the heart of areas of heavy wolf use during denning and rendezvous seasons.

The former includes the following roads that pose an immediate threat, with reasons for closure:



**FR288:** the Forest Service attempted to close this road where the current map shows it bending sharply to the south, about 1 ¼ miles west of FR285. A row of enormous boulders were put into place to prevent vehicles from continuing across a large meadow and into a

sensitive riparian area along the North Fork, East Fork of the Black River. Vehicle users have abused the privilege of driving on FR288 by tearing down signs and winching large boulders out of the way, creating new routes on a ridge above the closure on the northwest. The proposed extension of this route to the south, and then to the east, parallel to FR288 heading west, makes absolutely no sense, as it ends in a dispersed campsite less than a half-mile from at least two other dispersed campsites, and in the process of getting there, opens the entire central, open portion of Chambers Draw to destructive vehicular traffic.



FR 288 is one of the routes near where two Hawk's Nest wolves were illegally shot during June and July 2010. A closure of this road at FR285 would be easier to monitor and would both prevent threats to riparian areas in Chambers Draw and the North Fork, East Fork of the Black River and provide a measure of safety to denning wolves with small pups. Photos of members of the HN pack taken from this road on May 24, 2010 illustrate the sensitive nature of this stream/cienega are attached as Appendix Y.

*Recommendation: Close FR288 at FR285.*

#### **FR289:**

FR289 (also shown on the Rudd Knoll USGS quadrangle map as FR8912D and FR8912) is in bad condition as it climbs the hill to a small, dispersed campsite marked by the apparent grave of a dog. It is deeply rutted, causing vehicles to bypass the rutted sections, doing even more damage. Beyond the campsite, the road drops to the southwest and crosses a small drainage. At this point, the road was completely flooded when volunteer conservationists walked it in May 2010. The road is deeply rutted in this area, also, and undoubtedly spills considerable sediment into the cienega to the north. The road continues west into the woods, eventually shown as ending (or closed?) at a point south of Milkpen Tank. On the USGS quad map a locked gate appears at the location shown as the end of the road on the map accompanying Alt. B, but this gate was not in evidence when the volunteers hiked the route in May.

The road designated on the Alt. B map eventually turns south, and then east, to rejoin FR285 about a half-mile north of FR288. Our volunteers have hiked much of this road, which includes steep sections prone to erosion and at least one deeply eroded crossing of a drainage. It also connects to a maze of other roads, including FR8912 and FR8912A (as designated on the Rudd Knoll quad), which traverse large meadows and contain long stretches of multiple tracks, many feet wide. Taken together, this road network opens almost the entire section of OD Ridge west of FR285 to vehicular traffic, with the effect of making it less suitable for denning by Mexican wolves, in addition to causing considerable erosion and potential pollution of surface waters and marshes.

***Due to the difficulty of enforcing a closure south of Milkpen Tank, as well as resource damage already in evidence east of that point, we recommend closure of the entire FR289 complex of roads to vehicles.*** Note also that this area is only about 2-3 miles southwest of the southern end of the existing, and recently improved, ORV trail ending at Pat Knoll. Sufficient opportunities exist for ORV recreation without allowing ORV traffic on FR289, FR288, and side roads branching off these roads to threaten the integrity of the entire west end of OD Ridge.

***FR586:***

FR586 branches off FR88 west of Rogers Marsh and goes approximately five miles south to a dead end above Three Forks. Several roads branch off this road both to the Boneyard on the east, and toward the North Fork, East Fork, Black River to the west. This area has been heavily used by the Hawk's Nest Pack of Mexican wolves for several years. Members of the pack denned within approximately a 4-5 mile radius of the midpoint of this road every year for the past three years. Our volunteers observed pack members at locations within a half-mile of FR586 on three occasions in the summer of 2009, and found sign or heard the animals within a similar distance on several additional occasions.

FR586 itself crosses several drainages or meadow areas and is prone to flooding and erosion at those locations. FR8808, FR8809, and FR8820 form a loop running east from FR586, then south, and finally west to rejoin FR586. These roads cross several small drainages, are prone to erosion and flooding, which have led to the creation of "detours" at several spots. The large loop, which includes a miniature loop at the east end, encourages traffic and abuse in an area frequented by wolves, as well as by elk and other wildlife. Three additional roads, FR586B, FR586C, and FR8815, all branch off FR586 to the west. All three dead end above the canyon of the North Fork, Black River.

***Recommendation: Close FR586 at FR88***We would recommend leaving FR586 open to serve a handful of dispersed campsites along its length, closing only the side roads, however, as we noted in the discussion of FR288 and FR289, it is simply too difficult to enforce closures of these side roads. Apparently, FR586B was actually closed at one time, just past an existing dispersed campsite, a hundred yards off FR586. The fact that the closure was unenforceable is evidenced by our finding a closure sign lying in the grass a few feet from our volunteers tent, when they camped there in 2009. Unless and until the Forest Service marshals the resources to actually enforce closures of side roads along many miles of intermediate roads throughout the forest, we recommend closing forest roads where large, well-traveled roads turn into or branch off side roads, at which point breaches of closures may be more quickly discovered.

***Bluestem Pack***

The Bluestem pack, which did not den this year, occupies a home range that stretches from the eastern-central portion of the Fort Apache Indian Reservation roughly to US Hwy 191, occasionally moving east of the highway. They travel as far north as the Big Lake area, and as far south as the Black River Canyon and FR26, although they occasionally travel south of these landmarks, sometimes overlapping the home range of the Rim pack.

Several creeks trending southeast cross FR25 and flow into Centerfire Creek, which in turn heads south and joins the Black River. Motorized traffic along **FR25G** is the major problem. The

road itself has areas, particularly southwest of Kettle Holes, where it becomes rutted and eroded--the usual problem with roads on these flat areas with bad drainage. Our volunteers hiked from Kettle Holes to the point where it dead-ended above the Black River Canyon back in 2003. We are frankly shocked that the Forest Service would even consider adding a "new" (as shown on the Alt. B map) section of road ("**new22**" on the map) linking FR25G and **FR8786** to make a big loop. This kind of road configuration, encourages reckless and unnecessary driving.

This area which has been a central part of Bluestem home range over the years and would form a natural refuge for wildlife if vehicular traffic were prohibited. We recommend blocking **FR25G** at **FR555**, which goes east to serve the P. S. Knoll fire lookout tower. (Our volunteers observed four Bluestem wolves within about 150 yards from our camp at a little cienega just south of FR555 and east of FR25G in July 2003. The pack still uses the general area, although the pack "personnel" have changed over the years.)

The alternative also shows a road (**FR8780**) departing from FR25 to the west of FR25G. Our volunteers hiked down this closed road about a mile or so and camped several years ago to look and listen for an uncollared wolf or wolves reported in the area. The volunteers awoke in the morning to find a large flock of turkeys foraging as close as ten feet from their tent. This road runs close to Centerfire Creek all the way crossing side drainages along the way, with the usual potential for erosion and damage to surface waters and vegetation, to the detriment of turkeys and other riparian-loving wildlife.

Also, between these two roads (FR25G and FR8780) the alternative shows **FR8781** going only about a mile or so in the same general direction as the other two. There can be no justification for keeping it open.

To the east, **FR25H** runs south from FR25 past Caldwell Cabin. The road becomes rutted, narrow, and seasonally muddy near where it turns west, close to the spot on the rim of the Black River canyon from which Aldo Leopold is believed in 1909 to have shot a wolf pack whose killing he famously memorialized in *A Sand County Almanac* and which the Forest Service quotes at page 5 of the Wilderness Specialist's Report for this DEIS when describing the Escudilla Wilderness. It also is shown as connecting to FR555, allowing for through traffic back to FR25 via FR25G. In general, loop routes encourage reckless and unnecessary driving, often through sensitive wildlife habitats. Designation of loop routes should be avoided.

To summarize:

- FR25G: Close south of FR555.
- FR8786 and "new22": Close. If FR25G is closed at FR555, they will be inaccessible, in any event.
- FR8780: Close at FR25.
- FR8781: Close at FR25.
- FR25H: Close south of Caldwell Cabin.
- FR555: Close between access road to P. S. Knoll Lookout and FR25H.

### ***Rim Pack***

The Rim pack occupies a home range south and southeast of the Bluestem home range. These wolves use an area along the eastern boundary of the San Carlos Reservation, as well as the adjoining portion of the Apache National Forest, including the Bearwallow Wilderness. The Rim wolves are often found near Hannagan Meadow/Ackre Lake, and the area to the west, along FR24 and FR25. In past years the Rim pack has spent some time below the Mogollon Rim, sometimes east of Hwy 191.

Illegal shootings in the vicinity of the Rim home range include:

- F646, Saddle pack, 12/2/02 (“near the 25 road and Hwy 191”).
- AF510, Saddle pack, 9/15/03 (“near Snake Creek”)
- m1159, Rim pup, 10/13/08 (found along FR25 not far from Reno Lookout)

Two major forest roads, FR25 and FR24, traverse the home range of the Rim pack. One long, secondary forest road, FR25B, intersects FR25 at Double Cienega, and ends about nine miles to the northwest.

*Recommendation: Close FR25B at FR25*

This closure would also close FR8793, a road branching off to the northeast from FR25B, protecting a large area of the bench between Conklin Creek and Snake Creek from potential disturbance and poaching of wolves and other wildlife.

d. The motorized dispersed camping corridors and MBGR threaten the safety of the Mexican gray wolf

As noted above, the plight of the Mexican gray wolf is dire and illegal killings contribute substantially to this situation. The number of open roads, the 300 foot motorized dispersed camping corridors, and MBGR also pose a significant threat to the Mexican gray wolf. The DEIS is not clear in its analysis of how the Mexican wolf would be affected by the different alternatives because many of the alternatives include contradictory statement. The analysis of Alternative B is included as an example:

The reduction of 366,611 acres open to off-road motorized use **would benefit wolves**. Not only would the potential for vehicular collision be reduced forest wide, but **motorized access to areas inhabited by wolves would be reduced**. There would be **46 miles more open roads and trails** under this alternative. **Access into areas where wolves are located would continue and would likely occur at a similar rate as it does currently**. Any reduction in vehicular collisions or other human caused mortality would **not be measurable due to the relatively small decrease in roads**. Road closures are expected to be **beneficial by decreasing potential for interactions between people and wolves**. Corridors are designated within the primary and secondary recovery zones for Mexican wolves, and in areas throughout the experimental population area. There



would be an **increase in the level of impact on species occurring in areas where corridors are designated.**

However, an analysis of Table 7 below the total miles of roads and trails are quite similar among all alternatives. The options that reduce wolf/human contact include MBGR and camping corridors. Alternative B open 48,000 acres to camping corridors, Alternative C opens 2000 acres, Alternative D opens 148000 acres, and Alternative E opens 8500 acres. Clearly Alternatives B and D would result in more potential for wolf/human interactions and more risk for the wolves. Alternatives B and C both open 1.2 million acres to MBGR, Alternative D opens 700,000 acres, with Alternative E have no motorized game retrieval. Clearly the 1/4 mile option and the no MGBR offer the most protection for the wolves. We strongly encourage the Forest Service to eliminate or substantially reduce MBGR in Alternatives B and C. We also recommend limiting the camping corridors because of the excessive number of acres affected.

**Table 7. Comparison of elements between all alternatives**

Action Proposed	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E
<b>National Forest System Roads (miles)</b>					
Add unauthorized roads to system	0	53	28	37	64
Open closed NFS roads	0	358	0	415	220
Close NFS roads to all motor vehicles	0	493	0	479	559
Restrict currently open NFS roads to administrative and permitted use only	0	77	0	75	84

<b>Total Miles of Open NFS Roads</b>	<b>2,832</b>	<b>2,673</b>	<b>2,860</b>	<b>2,730</b>	<b>2,473</b>
<b>Total Miles of Closed NFS Roads</b>	<b>3,373</b>	<b>3,866</b>	<b>3,373</b>	<b>3,852</b>	<b>3,932</b>
<b>National Forest System Trails (miles)</b>					
Convert closed NFS roads to trails for motor vehicles 50 inches or less in width	0	60	0	64	14
Convert open NFS roads to trails for motor vehicles 50 inches or less in width	0	16	0	19	14
Add unauthorized roads as NFS trails for motor vehicles 50 inches or less in width	0	34	0	62	20
Construct new NFS trails for motor vehicles 50 inches or less in width	0	2	0	1	1

<b>Total Miles of Motorized NFS Trails</b>	<b>156</b>	<b>268</b>	<b>156</b>	<b>302</b>	<b>205</b>
<b>Motorized Off-Road Travel</b>					
Create 300-foot wide corridors (from either side of road) for the sole purpose of dispersed camping.	Allowed forestwide except where motorized restrictions exist (1.6 million acres).	Corridors designated along 658 miles of NFS roads(48,000 acres).	No corridors, however, unauthorized routes added which provide access to existing camping sites up to 28 miles(2,000 acres).	Corridors designated along 2,034 miles of NFS roads (148,000 acres).	Corridors designated along 118 miles of NFS roads (8,500 acres).
Motorized big game retrieval (MBGR) areas for elk, mule deer, and black bear late summer and fall hunts	Allowed forestwide except where motorized Restrictions exist (1.6 million acres).	A 1-mile distance designated from both sides of NFS roads and NFS trails and on NFS lands adjacent to open roads managed by other agencies except where motorized restrictions exist (1.2 million acres).	A 1-mile distance designated from both sides of NFS roads and NFS trails and on NFS lands adjacent to open roads managed by other agencies except where motorized restrictions exist (1.2 million acres).	A 1/4-mile distance designated from both sides of NFS roads and NFS trails and on NFS lands adjacent to open roads managed by other agencies except where motorized restrictions exist (700,000 acres).	Not allowed.

## 4. Bats

### *New information regarding bats*

For impacts to bats, including the spotted bat, Allen's lappet-browed bat, pale Townsend's big-eared bat, and the greater Western mastiff bat, the Forest Service should analyze the potential impacts of the spread of "white nose syndrome," a fungal infection decimating bat colonies across the eastern U.S. and recently discovered to have spread west of the Mississippi River.

Humans are a suspected vector of this fungus. *See* Center for Biological Diversity 2010, press release attached in Appendix Z. Nationally, the Forest Service is beginning to develop a strategy for addressing the anthropogenic transmission of white nose syndrome. *See* Appendix Z. While the closure of mines and caves used as hibernacula may help prevent the spread of white nose syndrome, we are also asking the Forest Service to proactively ensure the use of ORVs on designated routes and in dispersed camping corridors or MBGR "corridors" will not negatively impact bats or inadvertently lead to the spread of white nose syndrome. ORV travel on designated routes and in corridors could lead to the discovery of caves or mines that serve as bat roots and hibernacula and the inadvertent spread of this disease.

We have included five references the Forest Service should consider in analyzing the impacts of routes and cross-country travel to bats and the potential for recreational access to caves in Appendix Z. The following information is from a Forest Service (Southern Region) press release from May 21, 2009:

White Nose Syndrome, or WNS, is named for a white fungus that appears on the faces, ears, wings and feet of hibernating bats. Scientists are trying to determine how WNS affects bats. The disease causes bats to come out of hibernation severely underweight. In a desperate attempt to avoid starving, the affected bats are often seen flying during the day. They are looking for food, but the insects they normally eat in the spring are not yet available. Once a colony is affected, the fungus spreads rapidly and may kill 90 percent of bats at the hibernation site in just two years.

The Apache-Sitgreaves National Forests should consider how motorized routes will allow access to caves and facilitate the spread of WNS to bats in the Apache-Sitgreaves National Forests.

## **XIII. Interaction between Forest Planning and Travel Planning**

The Apache-Sitgreaves National Forests are currently in the midst of Forest Plan Revision. Many of the groups represented in these comments expressed our concern regarding the interface between Travel Management Planning and Forest Plan revision in our scoping comments. *See* Center for Biological Diversity *et al.* page 34. However, we reiterate our concern: 'tactical' decisions should not compromise or delimit the reach of 'strategic' decisions before such 'strategic' decisions are identified and defined.<sup>43</sup> *See* 40 C.F.R. § 1506.1.

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<sup>43</sup> The Forest Service's distinction between the two processes also serves as a basis for our position that the TMR process must produce a plan, not simply a route map. In other words, 'tactical' decisions must be properly nested within a 'tactical' plan to ensure conformance with overarching goals & strategies.

Route designations could, obviously, prejudice or compromise special recommendations made (or in development) by many of the undersigned groups and individuals if the Forest Service takes a narrow view of the TMR process and rejects these conservation-oriented management recommendations on the basis that they are more properly considered as part of the Forest Plan revision process. While the Forest Service may state that they retain the authority to revisit TMR designations during the Forest Plan revision process, it strikes us as that the Forest Service will, generally speaking, resist revisiting route designations to make room for conservation-oriented management recommendations. This scenario is deeply troubling as it undermines the spirit and intent, if not the letter, of the TMR and Forest Planning processes.

If the Forest Service is unwilling to broaden the TMR process to consider special area recommendations, ***the Forest Service must provide assurances to the public that the TMR process will not prejudice or compromise conservation-oriented management recommendations.***

Where the TMR process precedes the Forest Plan revision process, this suggests that the TMR process should focus on reducing route densities by designating a limited, baseline travel systems using a minimum of existing, authorized routes and refrain from designating new routes, in particular unauthorized, user-created routes. This should provide at least some assurance that the Forest Service has not prejudiced or compromised the Forest Plan revision process.

Additionally, the Forest Service should ensure that route designations adjacent or proximate to these special designations do not inadvertently compromise the purpose behind these special designations or act as conduits for illegal intrusions or the continued proliferation of user-created routes. Motorized recreation use does not simply cause direct impacts within the footprint of a designated route, but also causes indirect and cumulative impacts well beyond the footprint of a designated route relevant to protection and management of these special designations. *See* 40 C.F.R. §§ 1508.7, 1508.8.

Examples of a route designations that could compromise a special designation is the proposed addition of routes in the proposed additions to the Escudilla Wilderness area. We ask that all such routes that would compromise special designations be excluded from the MVUM.

## **XIV. The Travel System Must Be Based on Fiscal Realities**

None of the alternatives presented in the DEIS are fiscally sustainable. All of the alternatives call for maintaining more roads than the Forest Service can afford. The annual amounts of money available to the Forest Service for maintaining the existing road system is \$2.1 million dollars. This is actually an increase of almost 50% from the funding available in 2007 (Forest Service 2008a). Currently the annual maintenance cost of maintaining the existing road system is at least \$4.7 million a year. Even at the current funding level, that is unlikely to be sustained, there is an annual backlog of maintenance of \$2.5 million a year. None of the alternatives would address this shortfall. The Draft Environmental Impact Statement acknowledges this when it says on page 40:

Each action alternative would cost more to implement than the current forest travel management budget. The current budget also does not provide enough funding for maintenance of existing roads and trails.

The impact of the alternatives presented on the travel management maintenance costs range from increasing the costs by \$3,527 (for Alternative C), to decreasing the costs by \$223,358 (for Alternative E). The Preferred Alternative would result in a decreased cost of \$168,272. Forest Service 2010 DEIS at 41-42. When compared with the current annual maintenance backlog of \$2.1 million none of the alternatives comes close to being financially sustainable. The annual budget deficit for road maintenance will continue to be between \$2.65 million (Alternative C) to \$2.43 million (Alternative E) with the Preferred Alternative adding \$2.48 million a year to the maintenance backlog.

The current backlog of deferred maintenance cost on the Apache-Sitgreaves National Forest is \$52,608,627<sup>44</sup>. On pg 43 the DEIS claims that “The following present and future actions when combined with the designated road system under the action alternatives would cumulatively reduce the annual maintenance costs allowing more funding to be used toward the deferred maintenance backlog.” However, none of the actions described nor the alternatives considered, will have a significant impact on reducing maintenance costs. Of the four actions presented on pages 43-44, quantitative values were assigned to only one and in that case the only savings reported were to eliminate deferred maintenance on 28 miles of ML 3-5 roads. In actuality however the paving of these 28 miles of roads may actually increase the annual maintenance costs since ML5 roads have much higher per mile annual maintenance costs (\$10,587) than either ML4 (\$4,501) or ML3 (\$4,911) roads. None of the four actions and none of the Travel Management alternatives would provide enough savings to even come close to matching the ongoing deficit in maintenance costs let alone reduce the maintenance backlog.

The Federal Regulations governing the development of Travel Management Plans say:

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<sup>44</sup> On page 39 of the DEIS there is a column labeled “Total Annual and Deferred Costs” in actuality the values in the table are only those of the deferred costs. The annual costs are not included.

In designating National Forest System roads, National Forest System trails, and areas on National Forest System lands for motor vehicle use, the responsible official shall consider effects on National Forest System natural and cultural resources, public safety, provision of recreation opportunities, access needs, conflicts among uses of National Forest System lands, the need for maintenance and administration of roads, trails, and areas that would arise if the uses under consideration are designated; **and the availability of resources for that maintenance and administration** (36 C.F.R. § 212.55(a)).(Emphasis added).

The current alternatives certainly do not meet the spirit of these regulations.

All but one of the alternatives (Alternative C) will result in additional trail maintenance costs ranging from \$65,700 to \$22,500 a year. The Preferred Alternative will result in increased trail maintenance costs of \$50,400 a year. There is no indication of how the Forest will accommodate these increased annual trail maintenance costs. In addition all of the alternatives would involve one-time implementation costs ranging from \$69,300, including \$44,000 for adding unauthorized roads to the road system, for the Preferred Alternative (Alternative B) to \$14,000 for Alternative C. Again there is no indication how the Forest will accommodate these costs.

Because all alternatives result in motorized route systems that cannot be properly maintained given existing and expected future budgets, “these roads and motorized trails could deteriorate to a condition where road drainage systems no longer function properly, increasing potential for surface runoff and damage to surrounding vegetation (TMR vegetation analysis). Deterioration in road and trail conditions would adversely affect scenic quality particularly in locations that have high scenic value including water and riparian.” Forest Service 2010 DEIS Scenery Specialist Report at 10.

The Apache-Sitgreaves National Forest needs to reconsider the extent to which it can afford any of the proposed road systems. Our analysis shows that none of the systems comes even close to being financially sustainable. In order for the Forest Service to adopt a plan that would be financially sustainable it would have to eliminate all of the ML5 and ML4 roads and one-half to two-thirds of all ML3 roads. While such extensive cuts may not be feasible, supporting a road system with between 2,678 and 3,032 of roads and motorized trails is equally unrealistic.

## **XV. Snowmobiles**

Routes for Over Snow Vehicles (OSVs) should be Designated as Part of this Project

Winter recreation using OSVs is popular in the Alpine, Black Mesa and Springerville Ranger Districts and conflicts are common here. We are especially concerned about the areas around Forest Roads 24 and 25, the Hannagan Meadow to Acre Lake Trail, Hulsey Bench Wildlife Closure, Terry Flat, Pole Knoll, and the Horseshoe Cienega area in the Alpine and Springerville Ranger Districts. Snowmobiles create excessive noise in adjacent areas that are set aside for non-motorized recreational use, lower air quality and disrupt key wildlife species. There have been numerous confrontations reported between cross-country skiers and snowmobiles. Cross-country

skiers are disproportionately impacted by these conflicts because skiers expend an enormous amount of energy to find quiet areas to recreate and such efforts are completely destroyed by encounters with OSV users who are usually unaffected by skiers.

By not including winter travel planning for OSVs, the Forest Service will:

1. continue to allow resource damage from unanalyzed and unregulated OSV use, including negative impacts to wildlife and on vegetation in low-snow areas;
2. encourage user conflicts between OSV use and quiet, non-motorized recreational users of the forests to persist indefinitely;
3. give preferential treatment amongst other motorized users of the forest who have to obey the “closed unless open” policy of the Travel Management Rule; and
4. not meet either the spirit or the letter of Executive Orders 11644 and 11989.

In addition, the Forest Service has not provided a record of the decision made to not include winter season/OSV use as suggested in the Travel Management Rule. Fortunately, the Forest Service has defined off-highway vehicles to include “any motor vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, swampland, or other natural terrain (36 C.F.R. 212),” has defined off-road vehicles to include “all mechanical means of transportation; passenger cars, 4-wheel drive pickups, trail bikes, snowmobiles, or other ground transportation vehicles that are capable of traveling overland where no roads exist (Forest Service 1987).” Forest Service 2010 DEIS at 172. And, while the Travel Management Rule does allow for OSVs to be exempted from designations under 36 C.F.R. 212, it is not required that OSVs be exempted. Rather, Subpart C of the Travel Management Rule specifically provides for the regulation of OSVs at 36 C.F.R. 212.80, which states the “purpose of this subpart is to provide for regulation of use by over snow vehicles on National Forest System roads and National Forest System trails and in areas of National Forest System lands.”

The Forest Service should, in order to comply with the Travel management Rule and the Executive Orders 11644 and 11989, include an analysis and determination of where known winter recreational user conflicts exist as well as an analysis of resource damage and negative effects on key wildlife species cause by OSV in a supplementary DEIS. If the Forest Service has made a decision to exclude OSV use from the Travel Management Planning process, the Forest Service must include documentation of that decision, along with the rationale for that decision, in the project record.

## **XVI. Previous Closure Petitions Should be Made Part of the Project Record and Considered in the Impacts Analysis**

The Center for Biological Diversity and other groups have submitted a petition for closure of motorized routes and use in the San Francisco and Blue Rivers in 2007. The Forest Service declined to affirmatively respond to our petition, instead apparently deferring a decision to protect these areas to the Travel Management Planning process. We are unable to see in the project record where this petition has been considered. We are incorporating by reference, and attach as Appendix G, the closure petition we submitted November 16, 2007.



We ask that these issues be carefully considered once again as part of the analysis for Travel Management.

## **XVII. Comments Specific to Each Alternative**

For a complete list of routes that we have analyzed for resource concerns, please see Appendix GG. This appendix includes our analysis of all alternatives and assigns a “1” to all routes going through resources of concern. We realize that some routes with resource impacts, including multiple impacts, are high value routes. We are not advocating closure of all routes with resource impacts but we are asking the Forest Service to prioritize these routes with identified impacts for mitigation, maintenance, monitoring, and where the route is not a high value for access for immediate closure.

Appendix GG also includes PDF file maps of these routes color coded by number of resource impacts:

0-1 resources impacted by route = GRAY

2-4 resources impacted by route = ORANGE

5-9 resources impacted by route = RED

The Excel spreadsheet columns correspond to the following:

- "Gila\_trout\_unocc\_streams" –Gila trout unoccupied streams from USFS data – non-occupied habitat
- "Gila\_trout\_occ\_streams"–Gila trout occupied streams from USFS data – occupied habitat
- "Apache\_trout\_streams"–Apache trout unoccupied and occupied streams from USFS data –habitat
- "Chir\_leopard\_frog"- streams identified as habitat from TNC
- "Roundtail\_chub\_strems" – streams identified as habitat from CBD
- "loachminnow\_FCH" – critical habitat
- "SWW\_flycatcher\_FCH" – critical habitat
- "LCR\_spinedace\_FCH" – critical habitat
- "LCR\_spinedace\_streams"- streams identified as habitat from TNC
- "Gila\_chub\_FCH" – critical habitat
- "MSO\_FCH"– critical habitat
- "MSO\_PACs" – MSO PACs
- "Goshawk\_PFAs"
- "longfin\_dace\_streams"- streams identified as habitat from TNC
- "desert\_sucker\_streams"- streams identified as habitat from TNC
- "bluehead\_sucker\_streams"- streams identified as habitat from TNC
- "eligible\_WS\_rivers"
- "IRA" – Inventoried Roadless Area
- "RNA" – Research Natural Area
- "special\_protected\_areas" – these are ‘313 - protection areas’ Identified by the A-S under ‘Special Interest Management Areas’

- "wilderness" – Wilderness Area
- "Impaired\_streams" 303d listed
- "proposed\_wilderness" –Escudilla Wilderness Addition proposal
- "ROS\_non\_moto" – Primitive and Semi-Primitive Non-Motorized ROS

In addition, we have identified the following routes which the Forest Service should prioritize for closure which if left open, should not include dispersed camping corridors.

**A. Alternative A**

Routes in non-motorized ROS classes that should be closed:

111A	9179	119
212_1	9153	8070A
111	56K	9476G
115F	116T	225B
56G3	56G	54D
56G2	62B	63C
212B1	8083	115
115Q	60E	180
115O	115V	9004
100G	9710Q	217J1
115U	9710J	8883
567B	62A	9517
8351	402D	9722T2
8463	8858A	9260
115B	475D	91D
8037	115N	4054H
475I	475N	8324
60	4083	170Q
180A	4054H	

Routes in Proposed Wilderness that should be closed:

8056
8372
8056
8378

Routes in IRAs that should be closed unless very high value is demonstrated

515A	8328	475M	54
515	8463	475L	212
506	508	475K	25D

GR-67017	506A		4083
627	515		712
232	475I		8462D
24	8937A		119
25	8937	514	54D
111B	170Q	475N	54C1
212_1	8375A	475O	54C
8212	8375	8463B	63B
111	8369	8463A	115
8381	217F	30	25I
8345	217B	8462	281E
212	170G	627A	215
115F	8460	215C	475E
237	115V	217H	8780
217J1	217J	501	

**B. Alternative B**

Routes in non-motorized ROS classes that should be closed:

new104	111D
new2	115N
276	170Q
9260	180A
115U	212_1
111	212B1
119	217J1
180	402D
4083	4054H
4083	
8037	567B
8083	62A
8326	63C
8351	8858A
8463	9710J
8883	9710Q
9004	9179
9153	9517

Routes in Proposed Wilderness that should be closed:

- 8056
- 8056
- 8372
- 8378
- 8952A

8952  
8448A

Routes in IRAs that should be closed unless very high value is demonstrated

25	54	8212	217J
232	212	8328	25D
506	215	8344	25I
515	215	8345	
627	215	8365	
515A	237	8369	
GR-67017	475	8375	
111	501	8375	475H
119	508	8379	475K
4083	514	8380	475L
8326	8463A	8381	475O
8463	8463B	8460	506A
111D	8937A	8462	54C
170Q	217J1	8780	54C1
212_1	30	8937	8375A
170G	8462D	111E	

**C. Alternative C**

Routes in non-motorized ROS classes that should be closed:

276	115Q	115V	180
475I	115O	9710Q	100G
111A	56K	9710J	115N
212_1	62A	115U	9004
111	402D	567B	8070A
9179	116T	115B	8351
60	8037	9476G	8083
60E	8858A	475N	217J1
8324	8883	4054H	9722T2
115	9517	56G	9260
4083	475D	119	91D
115F	180A	225B	4054H
56G3	170Q	54D	
56G2	8463	62B	
212B1	9153	63C	

Routes in Proposed Wilderness that should be closed:

8056
8372
8056

8378

Routes in IRAs that should be closed unless very high value is demonstrated:

627	8345	8328
24	212	8375A
232	508	8375
515	506A	8460
GR-67017	515	8369
475I	712	8462
212_1	475E	215C
111	8937A	217B
115	8937	212
4083	217F	475O
115F	8463B	54
170Q	8463A	170G
8463	627A	25D
115V	281E	30
475N	215	54C1
119	475M	25I
54D	475L	63B
217J1	475K	514
111B	217J	8780
8212	217H	
8381	501	

**D. Alternative D**

We are deeply concerned about the proposed routes (81K and undesignated ORV trail) which are along Auger Creek. Collectively, these two routes are 1.2 miles in length. Of those 1.2 miles, 0.75 miles is within 50 feet of Auger Creek. At several points the proposed route is within 10 feet of the creek. Further, the route crosses the creek three times.

The undesignated ORV trail progresses directly through an Aspen grove on a significant grade. The route travels directly up the north facing slope and does not follow any pre-existing route. The trail would need to be surveyed, cut out of the forest, and graded. Two existing trails start at the southern terminus of the 81K route. The trail which heads west out of the drainage follows the bottom of a side drainage until it reaches FS 81. Currently this unmaintained trail is washed out and has a sediment deposition zone at the bottom because of erosion. The trail which progresses south off of 81K never leaves the drainage. At three points the trail crosses or is at the bottom of the creek bed. This unmaintained trail splits several times with social trails. Proposed route 81K starts on FS 81. There is no parking area, turnout, or shoulder for parking at this terminus. As a result no vehicles can be unloaded at this trail head. Because of the lack of parking options, only licensed drivers and street legal vehicle will be able to legally access this

trail. Licensed drivers and street legal vehicles will have FS 81 as an alternative route through Auger Canyon.

The undesignated ORV trail out of Paddy Creek does not currently exist. The trail which ORV users are currently creating terminates when it reaches the western crest of the northern escarpment. If the trail was to follow the vector indicated on Alternative D, it would require surveying, cutting of hundreds of trees, and a bed construction. If the current trail was to be extended, it would require significant surveying, bed construction, and an unknown level of tree removal. It is unknown if this route will follow a creek bed, go down significant grade or other hazards.

Routes in non-motorized ROS classes that should be closed:

180A	115F
new2	217J1
115O	8859
180	9517
475D	9153
8463	9710J
9004	72M
58H	4083
170Q	119
402D	9724X1
4083	9710Q
116M1	9724X
212B1	8057U
8037	New104
8382	8083
72M	63C
8351	9260
8326	62A
116C	115Q
711	104A
115U	9179

Routes in Proposed Wilderness that should be closed:

8378
275I-T2
8372
8056

8952A
8448A
8952
8066
8056

Routes in IRAs that should be closed unless very high value is demonstrated

24	8212	54	475
506	54	215A	8344
627	8369	475L	8780
232	New25	475K	215C
25	215	212	8380
515A	508	217J	475H
515	8375	514	25I
GR-67017	8375A	712	475C
212_1	8375	215	475B
111	8365	8937A	8379
111D	475O	8937	8462
8463	506A	4084	54C1
170Q	217F	215	54C
115F	237	475E	new70
217J1	8463B	8345	8328
4083	8463A	111E	501
119	8462D	25D	8460
104A	515	475A	25D
8326	30	8381	170G

### E. Alternative E

Routes in non-motorized ROS classes that should be closed:

8324	119
567B	4083
206	180A
276	111A
115U	475D
9260	8883
115U	116T
212B1	63C
115N	9179
9153	9710Q
8858A	8037
9710J	9517

212_1	402D
111	60
8463	217J1
180	8083

Routes in Proposed Wilderness that should be closed:

8056
8056
8378
8372
8952
275I
8448A
8952A

Routes in IRAs that should be closed unless very high value is demonstrated

new25	54C1	54
new116	54C	8369
new111	475O	111B
506	8381	8460
515A	8345	501
25	212	8937A
627	8463B	215
515	8463A	515
GR-67017	8462	170G
24	514	215C
232	237	63B
212_1	212	475K
111	508	8462D
8463	217J	217H
119	8937	217F
4083	25I	8328
217J1	506A	

## **XVIII. Lack of Public Meetings in Phoenix and Tucson**

We have repeatedly asked for public meetings in Phoenix and Tucson and were given conflicting information on whether meetings in these locations would take place. One local paper indicated the Forest Service was considering public meetings in Phoenix or Tucson late in the comment period, however our follow up contacts with the Forest Service made clear that these meetings would not take place. *See Appendix BB and CC.* We believe a large constituency of the Apache-Sitgreaves National Forests have been left out of this important planning process.



The Forests acknowledge that “[m]ost visitors originate from locations outside communities located near the forests.” Forest Service 2010 DEIS at 44. The Recreation Specialist Report for the DEIS for this project indicates that approximately 80% of forest visitors are from outside the local community and that the Phoenix metropolitan area is where the majority of forest visitors live. Forest Service 2010 DEIS Recreation Specialist Report at 12.

In response to our repeated requests for additional meetings in Phoenix and Tucson, we were told that the Forest Service did not get adequate responses and attendance for meetings held in Phoenix and Tucson during scoping. *See* Appendix DD. However, meetings regarding Travel Management have not been held in either city during scoping. Below is the schedule of meetings held during scoping:

Lakeside, AZ--November 6, 2007

Eagar, AZ--November 7, 2007

Clifton, AZ--November 8, 2007

Overgaard, AZ--November 13, 2007

Alpine, AZ--November 14, 2007

Show Low March 6 and 8, 2008

Springerville March 6 and 8, 2008

Clifton March 6, 2008

Safford March 8, 2008

Heber March 6 and 8, 2008

Alpine March 6 and 8, 2008

When the Forest Service released the supplementary DEIS for this project for public review and comment, we *highly recommend* that public meetings are held in Phoenix, Tucson, Payson and Flagstaff and that at least two weeks notice be giving prior to the first meeting in order to reach the majority of these forests’ visitors. We also point out that most visitors to the Apache-Sitgreaves National Forests from Phoenix or other outlying cities would be most available for public meetings locally during the summer months. It is difficult for many interested persons to travel to the forests during the late fall and winter months due to weather and road conditions.

For the DEIS comment period, we point out that the 45 day comment period covered Veteran’s Day, Thanksgiving, and Chanukkah, adding to the difficulty of not only traveling to the forests during this time, but also to having adequate time to comment and contact Forest Service staff.

## **XIV. Conclusion**

We again extend our appreciation to the Apache-Sitgreaves National Forests' staff for the opportunity to provide these comments regarding the DEIS for the Apache-Sitgreaves National Forests. Our intent in providing these comments is to work cooperatively with the Forest Service and the larger interested public to ensure that the Apache-Sitgreaves National Forests – as a public trust resource – are properly managed for the long-term public interest for the benefit of this and future generations. We look forward to working with the Forest Service as the TMR implementation process moves forward.

Please keep us apprised of any developments relative to this issue or process.

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