

* Arizona Wilderness Coalition *
* The Wilderness Society *

April 5, 2006

Planning Team, AFNM/Bradshaw-Harquahala BLM
Attention: Chris Horyza, Planning Team Leader
21605 N. 7th Ave.
Phoenix, AZ 85027

Re: Comments on the Agua Fria National Monument and Bradshaw-Harquahala Draft Resource Management Plan and Draft Environmental Impact Statement, released in January 2006

Delivered via email (az_afnm_bradshaw@blm.gov) and FedEx No. 854189274371

Dear Mr. Horyza:

Thank you for the opportunity to comment on the Draft Resource Management Plan/Draft EIS (“Draft RMP”) for the Agua Fria National Monument and the rest of the Bradshaw-Harquahala Planning Area. Please accept these comments from the Arizona Wilderness Coalition and The Wilderness Society. The *Arizona Wilderness Coalition* (AWC) works to permanently protect and restore Wilderness and other wild lands and waters in Arizona for the enjoyment of all citizens and to ensure that Arizona’s native plants and animals have a lasting home in wild nature. AWC represents 1500 members throughout Arizona. *The Wilderness Society* (TWS), founded in 1935, strives to deliver to future generations an unspoiled legacy of wild places. TWS represents 250,000 members nationwide, including over 3,500 in Arizona. Our members care deeply about the management of our public lands, including those managed by the Bradshaw-Harquahala Field Office. We appreciate the opportunity to submit these comments to the Bureau of Land Management (BLM) and appreciate your efforts to involve the public in this important process.

We recognize that a tremendous amount of work and public outreach went into this document. While we do have a number of comments requesting changes or additions to the document’s preferred alternative and analysis, we also recognize that this draft RMP presents a dramatic improvement over the pre-existing RMPs. The BLM did an excellent job at recognizing the different standard for management for the National Monument, and is well on its way to presenting a 20-year plan that will preserve the special characteristics of the Bradshaw-Harquahala area in the face of the region’s ongoing population explosion.

We would particularly like to thank the agency for expanding the public hearing schedule to include a date in Prescott. In addition, we continue to monitor the roll-out of e-planning. While we appreciate many elements of e-planning, we have several practical recommendations that we

believe will make this tool more accessible and usable for the general public. However, since these e-planning comments will apply to a wider range of issues than this plan, we will submit these comments in a separate document.

Our comments address the following issues:

I. Management Framework	2
II. Transportation and Public Access.....	9
Map of Proposed Transportation Network	27
III. BLM Should Amend its Transportation Planning Process	31
IV. Wilderness Characteristics.....	36
Map of Proposal for Agua Fria National Monument.....	39
Map of Proposal for Bradshaw-Harquahala Planning Area	41
V. Lands and Realty.....	43
VI. Wild and Scenic Rivers.....	44
VII. Wildlife	45
VIII. Recreation Resources.....	46
IX. Conclusion	47

I. The Draft RMP MUST RECONSIDER THE MANAGEMENT FRAMEWORK THROUGHOUT THE PLAN.

This Draft RMP addresses Agua Fria National Monument and a significant amount of non-Monument lands. While these two types of land are subject to different management priorities, both require BLM to consider and protect their many special values. While the draft RMP does at good job at recognizing these management priorities in many parts of the Draft RMP, we recommend improvement in other parts. We describe the management framework here so as to refer back to it in later sections of these comments.

A. Management Framework for Agua Fria National Monument

The National Monument was established by Presidential Proclamation issued in 2000 under the Antiquities Act of 1906, which authorizes President to designate National Monument status to areas possessing significant historical, scenic, and/or scientific values. The Proclamation for Agua Fria National Monument identifies the significant resources that merit its special status and call for their protection. Referred to as “objects of interest,” these resources include the landscapes of these areas, as well as numerous sensitive species, and many archaeological, geological, historic, cultural, and scenic attributes.

The Proclamation states that “the monument contains one of the most significant systems of late prehistoric sites in the American southwest,” and goes on to identify the myriad special attributes that earned the Monument designation, and thus are protected as “objects of interest,” including:

Cultural resources that identify the Monument’s “ancient ruins within the monument, with their breathtaking vistas and spectacular petroglyphs, provide a link to the past offering insights into the lives of the peoples who once inhabited this part of the desert

Southwest.” The Monument contains “at least 450 prehistoric sites... likely many more... at least four major settlements, including Pueblo La Plata, Pueblo Pato, the Baby Canyon Ruin group, and the Lousy Canyon group... intact petroglyph sites.. range from single designs on boulders to cliffs covered with hundreds of geometric and abstract symbols.. “an extraordinary record of prehistoric agricultural features, including extensive terraces bounded by lines of rocks and other types of landscape modifications...” The Monument “encompasses one of the best examples of these areas, containing important archaeological evidence that is crucial to understanding the cultural, social, and economic processes that accompanies this period of significant change.”

More recent historical resources record “early Anglo-American history through the 19th century, including remnants of Basque sheep camps, historic mining features, and military activities.”

The Monument is also rich in biological resources, including its “ribbons of valuable riparian forest,” and “habitat for a wide array of sensitive wildlife species, including the lowland leopard frog, the Mexican garter snake, the common black hawk, and the desert tortoise.” Other abundant and diverse wildlife include “pronghorn, mule deer, and white-tail deer... javelina, mountain lions, small mammals, reptiles, amphibians, fish, and neotropical migratory birds.” “Elk and black bear are present, but not abundant.” And finally, the Agua Fria River supports four species of native fish, including, “longfin dace, Gila mountain sucker, Gila chub, and the spectacled dace.”

Importantly, the Proclamation recognizes that it is the landscape-scale that leads to one of the most significant aspects of the Monument: “Such objects, and more importantly, *the spatial relationships among them*, provide outstanding opportunities for archaeologists to study the way humans interacted with one another, neighboring groups, and with the environment that sustained them in prehistoric times [emphasis added].” Therefore, part of the purpose of the Monument is to maintain these spatial relationships so that the area’s cultural resources are preserved in their original context. The *only purpose* stated in the Proclamation is that the Monument was created “for the purpose of protecting the objects identified above.” To accomplish this purpose, the Proclamation establishes specific management requirements, including prohibiting all off-road use of motorized and mechanized vehicles (except for emergency or administrative purposes) and withdrawing the Monument lands from mineral leasing and mining (subject to valid existing rights).

We appreciate BLM’s acknowledgment that the Proclamation must guide the Monument’s management decisions made within the RMP. The Draft RMP states “Agua Fria National Monument was established to preserve and protect, for present and future generations, its exceptional scientific and historic resources.” Draft RMP, p. 27. However, we are concerned that BLM has not complied with their specific legal obligations to prioritize protection of identified Monument objects above all other uses, which require necessary corrections. BLM’s responsibility to protect Monument objects must guide both the environmental analysis and the management decisions made within the RMP.

We are concerned that BLM is improperly relying on “multiple-use” principles to determine and designate permissible activities within the Monument. FLPMA requires BLM to manage public lands under multiple-use principles unless an area has been designated by law for specific uses, in which case BLM must manage the land for those specific uses. 43 U.S.C. § 1732(a). Pursuant to the legal authority granted by Congress in the Antiquities Act, the President designated Agua Fria as a National Monument for the explicit purpose of protecting and preserving identified historic and scientific objects. Proclamation No. 7263. Accordingly, standard multiple-use principles do not apply to the Monument, and any effort to adopt such a management approach to the detriment of historic values would be in violation of the Presidential Proclamation and the mandates of FLPMA. BLM must manage the Monument for the protection and preservation of historic and scientific values, and only allow multiple-uses only as those uses do not conflict with the directives of the Proclamation.

Several recent administrative and district court decisions reiterate BLM’s special legal obligation in managing national monuments, and the importance of the Presidential Proclamation’s designation of a national monument through the authority granted by the Antiquities Act. In an August 31, 2005 decision, Judge Sweitzer affirmed the decision by BLM to deny a request to graze cattle on lands acquired by the BLM and then encompassed in the area of the Monument designation. In this case, the Administrative Law Judge recognized that even though the Proclamation did not prohibit grazing, “to the extent BLM reasonably found that grazing would negatively impact objects of interest . . . , its decision to deny the grazing applications was in accordance with 43 C.F.R. 4100.0-8 [permitting grazing in land use plans].” Id. at ___. This decision clearly states: “After the Monument was established, BLM’s primary responsibility was to manage the land within the Monument so that the objects of interest identified by the Proclamation were protected” (emphasis added).

Further, the ALJ concluded that [emphasis added]:

“After the Monument was established, BLM’s primary responsibility was to manage the land within the Monument so that the objects of interest identified by the Proclamation were protected.”

“Even though the Proclamation did not ban grazing on the Box O land, it still required BLM to protect the objects of interest, as identified in the Proclamation, which were present on the Box O land. Furthermore, nothing in the Proclamation requires grazing on Box O land. Accordingly, to the extent BLM reasonably found that grazing would negatively impact objects of interest . . . , its decision to deny the grazing applications was in accordance with 43 C.F.R. 4100.0-8 [permitting grazing in land use plans].”

“I agree with BLM that the multiple use mandate does not require every tract of public land to be managed for every possible use.”

“More to the point, the issuance of the Proclamation, which was done in accordance with the Antiquities Act, means that the lands are no longer to be managed on a multiple use basis. . . Instead, the lands within the Monument are now to be managed primarily for the protection of the objects of interest identified in the Proclamation.

Mr. Drehbol [Monument Manager] properly focused on the Proclamation, rather than the FLPMA multiple-use provisions, when he issued the grazing decisions."

This recognition of the important difference in priorities associated with management of Monument lands was also echoed in a recent decision by the U.S. District Court for the District of Montana. In confirming the potential need to increase the bonding requirement on a pre-existing pipeline in the Upper Missouri River Breaks National Monument, the court focused on the fact that the new management plan prepared for the National Monument differed from the previous plan for the resource area, because it was based on study and acknowledgment of the "unique natural values of the area." Montana Wilderness Association v. Fry, 408 F.Supp. 2d 1032 (D.Mont. 2006).

B. Overall Concerns Regarding Application of Management Framework for Agua Fria National Monument

While in general we believe that the BLM is embracing these legal obligations, there are several places throughout the Draft RMP/EIS where some terminology, decisions, and analyses are inadequate and should be amended. We will refer back to the comments above on the importance of Monument "objects of interest" throughout our comments.

In addition, because the protection of monument objects is the agencies' first priority, each of the objects should be specifically evaluated in the "Affected Environment" and "Environmental Impacts" chapters of the Draft RMP. While currently some of the objects are evaluated in these sections, evaluating all of them and specifically referring to them as monument objects would help guide the agency and the public on the status and level of protection expected for each object.

Recommendation: In order to fully comply with the requirements of the Proclamation and the Antiquities Act, BLM should present a complete evaluation of the proposed plan's impacts on monument objects by specifically including each monument object (and referring to it as such) in the "affected environment" and "environmental impact" sections of the Draft RMP.

In addition, we are concerned that the purpose statement in 1.5.1.1 contains only a partial list of "Monument objects" in the wildlife bullet point. RMP at 27.

Recommendation: We recommend that BLM revise the Monument purpose statements (1.5.1.1) to include the full list of wildlife Monument objects listed above, specifically: common black hawk, pronghorn, mule deer, white-tailed deer, javelina, mountain lion, small mammals, reptiles, amphibians, neotropical birds, elk, and black bear.

We are also concerned about the range of alternatives that has been presented for Agua Fria National Monument. The range of alternatives is "the heart of the environmental impact statement." 40 C.F.R. § 1502.14. NEPA requires BLM to "rigorously explore and objectively evaluate" a range of alternatives to proposed federal actions. *See* 40 C.F.R. §§ 1502.14(a) and 1508.25(c).

“An agency must look at every reasonable alternative, with the range dictated by the nature and scope of the proposed action.” Northwest Env'tl Defense Center 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, 1122-1123 (9th Cir. 2002) (and cases cited therein). For this Draft RMP, the consideration of more environmentally protective alternatives is consistent with both the requirements of the Monument Proclamation and FLPMA’s requirement BLM to “minimize adverse impacts on the natural, environmental, scientific, cultural, and other resources and values (including fish and wildlife habitat) of the public lands involved.” 43 U.S.C. §1732(d)(2)(a).

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).” Colorado Environmental Coalition v. Dombeck, 185 F.3d 1162, 1174 (10th Cir. 1999), citing Simmons v. United States Corps of Engineers, 120 F.3d 664, 669 (7th Cir. 1997). This requirement prevents the EIS from becoming “a foreordained formality.” City of New York v. Department of Transp., 715 F.2d 732, 743 (2nd Cir. 1983). *See also*, Davis v. Mineta, 302 F.3d 1104 (10th Cir. 2002).

Under the Proclamation and the Antiquities Act cited above, all of the alternatives that apply to management of the Monument must conserve Monument resources first (and in particular, those resources that are “objects of interest”), and only then make other management decisions that do not interfere with the conservation of monument resources. Thus, in order to comply with these requirements, the range of alternatives cannot include management decisions that will undermine protection of Monument objects in favor of other resources or uses, such as recreation or tourism. To comply with both NEPA and the Monument Proclamation, the BLM must present a range of alternatives where there is variability among alternatives, but no alternatives would harm monument objects.

For example, the impact analysis section identifies numerous incidences where proposed management actions would have a potential negative impact on a Monument object. Here is one, but these sort of impacts are identified throughout the document:

“An increased number of users resulting from Back Country Byway designations would likely affect cultural resources along Bloody Basin and Constellation Mine roads. Potential impacts include the possibility of increased vandalism and accelerated erosion at roadside sites...” (4.12.1) Draft RMP at p. 503.

It is a violation of the requirements of the Proclamation that the BLM formulated an alternative that could be expected to have this negative impact on a Monument Object. The management alternatives presented for the Monument do not comply with BLM’s obligation to consider a

reasonable range of alternatives or to consider the environmentally preferable alternatives that would conserve Monument objects and/or other valuable resources in the AFNM. As described above, standard multiple-use principles do not apply to the Monument, and any effort to adopt such a management approach to the detriment of monument objects would be in violation of the Presidential Proclamation and the mandates of FLPMA. BLM must manage the Monument for the protection and preservation of historic and scientific values, and only allow multiple-uses when those uses do not conflict with the directives of the Proclamation.

Recommendation: The agency should ensure that all alternatives applying to Monument lands have conservation and protection of Monument objects as the primary consideration. We will identify specific failures in the preferred alternative below, but all the alternatives should adhere to this recommendation.

Overall, we have a concern throughout the draft RMP that the BLM is not asking the right questions. Since protection of “objects of interest” is the primary mandate for the agency, the burden of proof is on the agency to show how every proposed action *contributes to preserving these objects*. Since Agua Fria is a Monument, the question is no longer “why should we take this management action?” Instead, the proper question is “why shouldn’t we take this management action (i.e. will the proposed action contribute to the preservation of Monument objects?).

As described in detail above, the protection mandate in the Monument Proclamation is clear: “...hereby set apart and reserved ..., for the purpose of protecting the objects identified above...” and that “the national monument shall be the dominant reservation.” The purpose of the Monument is to protect the objects identified. All BLM management activities in the draft RMP must be consistent with protecting the “objects” identified in the proclamation. The mission, goals, and purpose statements in the draft RMP state this responsibility. (1.5) Draft RMP p. 26-28. However, despite the worthy statements made here, there are several incidences where the BLM seems to imply other purposes are favored over the Monument’s singular conservation purpose:

“Finally, even though no stipulations were made in the Agua Fria National Monument Proclamation for public use, some degree of onsite public education and interpretation is considered desirable, though not to the detriment of the cultural resources that Agua Fria National Monument was created to protect.” (4.12) RMP at 502.

While this desire to provide public education and interpretation is admirable, we emphasize that the burden of proof for this activity must be reversed. These activities should only be provided if BLM can justify *that they will contribute to the conservation of Monument objects*, not just that there is no “detriment to cultural resources.”

Recommendation: The agencies should reassess their decisions and identify how each decision will contribute to preserving “Monument objects.” Proposed actions that fail the “protection” test should be amended.

C. Management Framework for Bradshaw-Harquahala Lands

Although the remainder of the planning area is not governed by Monument Proclamation, the Federal Land Policy and Management Act (“FLPMA”), 43 U.S.C. § 1701 *et seq.*, imposes a duty on BLM to identify and protect the many natural resources found in the public lands in the Bradshaw-Harquahala Planning Area that will be governed by this RMP. FLPMA requires BLM to inventory its lands and their resource and values, “including outdoor recreation and scenic values.” 43 U.S.C. § 1711(a). FLPMA also obligates BLM to take this inventory into account when preparing land use plans, using and observing the principles of multiple use and sustained yield. 43 U.S.C. § 1712(c)(4); 43 U.S.C. § 1712(c)(1). Through management plans, BLM can and should protect wildlife, scenic values, recreation opportunities and wilderness character in the public lands through various management decisions, including by excluding or limiting certain uses of the public lands. See 43 U.S.C. § 1712(e). This is necessary and consistent with FLPMA’s definition of multiple use, which identifies the importance of various aspects of wilderness characteristics (such as recreation, wildlife, natural scenic values) and requires BLM’s consideration of the relative values of these resources but “not necessarily to the combination of uses that will give the greatest economic return.” 43 U.S.C. § 1702(c). FLPMA explicitly recognizes that multiple use does not mean that every acre must or should be available for all multiple uses; FLPMA’s definition of “multiple use” includes “the use of some land for less than all of the resources.” 43 U.S.C. FLPMA § 1702(c). (emphasis added). In this manner, all BLM lands can serve multiple uses and still permit, and in some cases even require, management of certain places to conserve natural resources as paramount over other uses.

Under FLPMA, BLM is also obligated to “give priority to the designation and protection of areas of critical environmental concern [ACEC].” 43 U.S.C. § 1712(c)(3). ACECs are areas where special management attention is required “to protect and prevent irreparable damage.” 43 U.S.C. § 1702(a). Protection of existing ACECs and due consideration of proposed ACECs must be a priority in the this RMP process.

Further, FLPMA requires that: “In managing the public lands the [Secretary of Interior] shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands.” 43 U.S.C. §1732(b). In this context, when the imperative language “shall” is used, “Congress [leaves] the Secretary no discretion” in how to administer FLPMA. NRDC v. Jamison, 815 F.Supp. 454, 468 (D.D.C. 1992). BLM’s duty to prevent unnecessary or undue degradation (UUD) under FLPMA is mandatory, and BLM must, at a minimum, demonstrate compliance with the UUD standard. See, Sierra Club v. Hodel, 848 F.2d 1068, 1075 (10th Cir. 1988) (the UUD standards provides the “law to apply” and “imposes a definite standard on the BLM.”).

The National Environmental Policy Act (NEPA), 42 U.S.C. § 4321 *et seq.*, dictates that the BLM take a “hard look” at the environmental consequences of a proposed action and the requisite environmental analysis “must be appropriate to the action in question.” Metcalf v. Daley, 214 F.3d 1135, 1151 (9th Cir. 2000); Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 348 (1989). In order to take the “hard look” required by NEPA, BLM is required to assess impacts and effects that include: “ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural,

economic, social, or health, **whether direct, indirect, or cumulative.**” 40 C.F.R. § 1508.8. (emphasis added). The NEPA regulations define “cumulative impact” as:

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. (emphasis added). A failure to include a cumulative impact analysis of actions within a larger region will render NEPA analysis insufficient. *See, e.g., Kern v. U.S. Bureau of Land Management*, 284 F.3d 1062, 1078 (9th Cir. 2002) (analysis of root fungus on cedar timber sales was necessary for entire area). In the context of this RMP, the decisions made in one area of this landscape are likely to affect other areas, including the Monument objects, as part of the greater region near Agua Fria. Accordingly, to the extent that management decisions in the non-Monument lands can affect the Monument objects, BLM must analyze potential impacts and consider ways to avoid or limit them in order to perform a NEPA analysis commensurate with the scope of the decisions included in the RMP.

Recommendation: In developing and evaluating potential management alternatives for the Bradshaw-Harquehala area, BLM should bear in mind the concept of multiple use, as defined above, in order to inventory and safeguard resources such as scenic values, wilderness character, cultural resources and wildlife habitat and create ACECs. We are concerned that BLM has not complied with these obligations and will make specific recommendations regarding necessary corrections later in these comments.

II. THE DRAFT RMP DOES NOT ADEQUATELY PRESENT ALTERNATIVES OR AN ANALYSIS FOR TRANSPORTATION AND PUBLIC ACCESS

Transportation planning in this rugged backcountry poses many challenges for the BLM to manage the area’s nationally-significant cultural resources, wildlife habitat, and scenic vistas. We are impressed that the BLM has recognized the damage that motorized recreation can pose to Monument resources, and has thus provided a limited route network in the preferred alternative. However, we urge the agency to reassess this alternative and do an even better job at providing a route network that will help the BLM protect the Monument’s irreplaceable resources.

We support motorized access to the Monument, but this use must be designated carefully only after the agency can show that it has prioritized its responsibility to protect the area’s resources, including sensitive wildlife, plants, and geological, archaeological, historic, and cultural resources. All travel planning decisions should be made in the context of the agency’s obligation to protect these resources. Travel planning should not be simply a division of the landscape between competing recreational, extractive, administrative or other uses. In the Monument, where protection of “objects” is the priority, the agencies should remove routes that divide wildlife habitat or damage archaeological sites or other sensitive resources. Given the population

explosion in the greater Phoenix area and the Monument's growing popularity, the transportation plan will determine the future of the cultural resources and wildlife in the Monument.

Our comments on the trails and travel management aspects of the plan include a range of issues including the use of the terms such as "access," "route" and "road." We also present an argument that the agencies have a burden of proof to indicate how a route assists protection of Monument objects, and raise concerns and make recommendations about presenting a more appropriate range of alternatives and analysis of the baseline conditions and impacts for sensitive resources.

A. Use of the term "access"

Throughout the draft RMP, the word "access" is almost always used to denote *motor vehicle* access. By not explicitly identifying that "access" refers to "motor vehicle" access, the draft RMP contributes to the false impression that human access to public lands in the Planning Area, and particularly in the Monument, is severely limited. The fact is that human access to the Monument is virtually unlimited. Hikers and horseback riders have unfettered access throughout the entire Monument, and many "closed" Monument roads will be adapted to support non-motorized users. Motor vehicles, although they have thousands of miles of routes available to them, do not have unlimited access to the Monument.

Recommendation: The language in the draft RMP should be changed to include the unstated-but-intended words "motor vehicle" whenever "access" refers to motor vehicle access. Not being explicit about what kind of access is being discussed will continue to contribute to public confusion regarding public "access" to Monument lands.

B. Burden of proof

As stated earlier in these comments, given that the purpose of the Monument is protection of "objects" and given that Monument roads were not built for the purpose of protecting Monument objects – and too often harm Monument objects – "The question is no longer 'Why *shouldn't* this route be here?' The question regarding each BLM road in the Monument is now 'Why *should* it be here?' The Proclamation puts the burden of proof on each BLM route not encumbered by valid existing rights to demonstrate how it sufficiently contributes to preserving "Monument objects." Roads that fail the "protection" test should be closed, and those that cannot be closed due to valid rights of way, should be limited to that specific administrative access only.

As described in further detail above, the protection mandate in the Monument Proclamation is clear: "...hereby set apart and reserved ..., for the purpose of protecting the objects identified above..." and that "the national monument shall be the dominant reservation." The purpose of the Monument is to protect the objects identified. All BLM management activities in the Draft RMP must be consistent with protecting the "objects" identified in the proclamation. The mission, goals, and purpose statements in the draft RMP state this responsibility. (1.5) Draft RMP p. 26-28. However, despite the worthy statements made here, the impact analysis identifies impacts to Monument objects that will result from the transportation routes in the Preferred Alternative":

“... network of transportation routes, which could increase potential for cultural resources damage. Direct impacts could include disturbance to surface features such as walls, soils, and artifacts from vehicle traffic resulting in damage, breakage, or displacement. A more extensive road network would facilitate public access to a larger number of archaeological sites, increasing their vulnerability to vandalism and artifact theft.” (4.12.13) Draft RMP at 518-519.

“... closing 38 miles in the Agua Fria National Monument would reduce habitat fragmentation and human disturbance to priority habitat and priority species, including riparian and pronghorn habitats.” (4.11.13) Draft RMP at 501.

These statements assert that the BLM is aware that the proposed transportation network will damage Monument objects, yet the agency is proposing it nonetheless. This implies that the BLM is trying to justify these routes for other purposes, such as motorized recreation and touring. These uses are not mentioned in the Proclamation, so it appears that BLM officials believe the agency is obligated to provide for other uses of the Monument, including motorized recreation, as part of its management responsibility. We again reiterate that the Proclamation states that the Monument was created solely “for the purpose of protecting” those objects, which include an array of sensitive archeological and biological resources. Nowhere do they mention balancing motorized access against protecting Monument resources.

In fact, the Proclamation explicitly requires BLM to restrict motorized access. AFNM’s proclamation states that, “all motorized and mechanized vehicle use off road will be prohibited, except for emergency or authorized administrative purposes.”

Recommendation: The agencies should reassess their decision to leave the preferred alternative’s network of motorized travel routes across the Monument. For each route that is to be designated open the agencies should provide justification for how each route contributes to preserving “Monument objects.” Roads that fail the “protection” test should be closed, and those that cannot be closed due to valid existing rights, should be limited to that specific administrative or entitled access only.

C. Violations of the National Historic Preservation Act:

BLM Must Comply with Section 106 of the National Historic Preservation Act (NHPA) prior to the designation of motorized travel routes. An RMP establishes a written document of land use limitations, resource condition goals and objectives, support actions, and a number of other items. See 43 C.F.R. § 1601.0-5(k). In general, it “is not a final implementation decision on actions which require further specific plans, process steps, or decisions under specific provisions of law and regulations.” Id. However, when an RMP designates areas for transportation access and travel, as is the case here, that decision is an “undertaking” requiring compliance with Section 106 of the National Historic Preservation Act, 16 U.S.C. 470f. Adoption of the RMP is the final agency action that authorizes the designation of roads and routes as “open” for travel and transportation and off-highway vehicle (OHV) use, which have the potential to adversely

affect historic properties. Therefore, BLM must comply with Section 106 prior to approving the road designation and OHV designation.

The Draft RMP does not demonstrate compliance with the requirements of Section 106 of the NHPA. Section 106 of the NHPA requires BLM to take into account the effects of its actions on all affected historic resources and to provide the federal Advisory Council on Historic Preservation (“Advisory Council”) a reasonable opportunity to comment prior to making its decision. 16 U.S.C. § 470f. The Advisory Council’s Section 106 regulations require Federal agencies to: (1) “make a reasonable and good faith effort” to identify historic properties potential adversely affected by an undertaking; 36 C.F.R. § 800.4(b)(1); (2) determine the eligibility of historic properties for the National Register, *id.* § 800.4(c); (3) assess any effects the undertaking may have on historic properties, *id.* § 800.5; and (4) if the effects are adverse, develop and evaluate alternatives or modifications to the project to avoid, minimize, or mitigate those effects based on consultation with the SHPO, Indian tribes, the Advisory Council, and other consulting parties, *id.* § 800.6(a). Importantly, the Section 106 regulations establish a process that creates a dialogue between the Federal agency and other parties, including identified consulting parties. Through this dialogue, when adverse effects are determined to occur in connection to the proposed action, the federal agency with input from consulting parties will seek ways to “avoid, minimize, or mitigate” adverse effects to identified cultural resources.

Here, BLM fails to comply with the requirements of Section 106 with respect to transportation designations, especially for unauthorized roads, such as user created roads/routes that have never been evaluated. Many of the roads assessed in the Monument appear to fall under the category of unauthorized, user created roads and routes. Also, the Draft RMP does not evidence compliance with Section 106 of the NHPA in making decisions about which roads will be designated as open for OHV use. These decisions do have the potential to adversely affect significant cultural resources, a point which we will further elaborate on later in these comments.

Recommendation: We strongly recommend that BLM initiate the Section 106 process with respect to route designations and OHV designations prior to completing the RMP. BLM should seek to consult with appropriate parties, including Indian tribes and other groups with an interest in the protection of these significant cultural and historic resources. Further, we recommend that BLM examine not only the potential direct adverse effects, but also those indirect adverse effects, such as increased access to sites, which could led to increased vandalism and pot-hunting.

In addition, BLM has failed to integrate a management program for carrying out their proactive stewardship responsibilities for the known and unknown cultural resource within the Monument, pursuant to Section 110 of the NHPA. Section 110 of the NHPA requires BLM to outline a program to proactively inventory and evaluate cultural resources, and nominate cultural resources to the National Register of Historic Places, and protect historic properties. 16 U.S.C. 470h-2(a). References to proactive management, such as stabilizing sites and encouraging scientific research, are vague and do not reflect the program plan required by Section 110. Given the tremendous known and as yet unidentified resources within the Monument, BLM must be held accountable for a more definitive cultural resource management plan in accordance with Section 110, as opposed to the vague commitments made with the Draft RMP.

Additionally, President Bush's Executive Order, entitled "Preserve America," reiterates BLM's responsibility to manage public lands in the spirit of stewardship of cultural and historic resources. Executive Order 13287 (Mar. 3, 2003). Executive Order 13287 requires each Federal agency to "prepare an assessment of the current status of its inventory of historic properties," expanding on the requirement found in section 110(a)(2) of the NHPA. *Id.* § 3; *see* 16 U.S.C. § 470(h)-2(a)(2). Additionally, the President requests that each agency "ensure that the management of historic properties in its ownership is conducted in a manner that promotes the long-term preservation and use of those properties." *Id.* § 4 (emphasis added). The Draft RMP should take stronger steps not only to ensure compliance with the NHPA, but also to ensure that BLM has considered and integrated President Bush's proactive stewardship agenda.

Recommendation: We recommend that BLM provide a detailed cultural resource management plan within the RMP. Such a plan should outline with specific detail about how BLM will seek to protect identified and unidentified resources. Also, the plan should provide sufficient detail as to how it will not only inventory and evaluate the Monument for cultural resources, but also nominate appropriate resources to the National Register.

D. No definition presented for "routes" or "roads":

For all alternatives regarding the Monument, we recommend that all references to "routes" for travel by motorized or mechanized vehicles be amended to refer to "roads," not "routes" in order to comply with the Proclamation. This concern was originally brought forth in a letter submitted by the Arizona Wilderness Coalition and Sierra Club Grand Canyon Chapter submitted on July 9th, 2002 (incorporated by reference). The Proclamation articulates an unequivocal obligation to apply an accurate and precise definition of "road" in the Monument in order to meet the requirements of the statement:

"For the purpose of protecting the objects identified above, the Secretary of the Interior shall prohibit all motorized and mechanized vehicle use off road, except for emergency or authorized administrative purposes." [emphasis added]

Any decision that allows motorized and mechanized vehicle use off of a "road," under a standard, legal, definition of what constitutes a "road" could be construed as arbitrary and capricious, and abuse of discretion, or otherwise not in accordance with the law under 5 U.S.C. § 706(2)(A) of the Administrative Procedures Act of 1946.

The legal definition of road for the BLM public lands is derived from the definition of "roadless" in the legislative history of FLPMA:

The word "roadless" refers to the absence of roads which have been improved and maintained by mechanical means to insure relatively regular and continuous use. A way maintained solely by the passage of vehicles does not constitute a road. (H.R. Rep. No. 94-1163 at 17 (1976)).

In addition, the Code of Federal Regulations (43 C.F.R. § 19.2(e)) establishes the following definition:

An improved road that is suitable for public travel by means of four wheeled, motorized vehicles intended primarily for highway use.

Thus, tracks created by the repeated passage of vehicles, people, wildlife, or anything else, standing alone, do not constitute a road; mechanical improvement, whether by hand tools or power machinery, is necessary. In other words, “use” or “nonuse” of a given route is inadequate information to determine what is or is not a “road.” Single track trails or other trails also do not meet the definition of a road.

Another definition for road is available from IM No. AZ-2004-021:

Road: as used herein (a linear route), a transportation facility used primarily by vehicles having four or more wheels, documented as such by the owner, and maintained for regular and continuous use.

It is curious that this definition was developed recently to achieve consistency in BLM planning across Arizona (partially in regards to transportation planning), and yet it is not referenced anywhere in the draft RMP. We are aware that BLM has previously stated that it does not recognize the definitions of “road” that we cite under H.R. Rep. No. 94-1163 at 17 (1976) and 43 C.F.R. § 19.2(e). However, it seems that the agency should at least use its own definition specifically authorized by the state director for the Arizona BLM.

Recommendation: We recommend that the agencies include a consistent definition of “route” and “road” throughout the draft RMP, and revise their alternatives to only include routes that meet the definition of “road” (based on the applicable law and guidance cited above) in the range of alternatives for the Monument.

E. Inadequate baseline data on “objects” and other sensitive resources:

Establishing baseline conditions for the affected environment is an essential requirement of the NEPA process. In order to evaluate the broad range of impacts encompassed by a NEPA analysis, it is critical that BLM adequately and accurately describe the environment that will be affected by the proposed action under consideration – the “affected environment.” 40 C.F.R. § 1502.15. The importance of accurate baseline data have been emphasized by the U.S. Court of Appeals for the Ninth Circuit, which stated that “without establishing . . . baseline conditions . . . there is simply no way to determine what effect [an action] will have on the environment, and consequently, no way to comply with NEPA.” Half Moon Bay Fisherman’s Marketing Ass’n v. Carlucci, 857 F.2d 505, 510 (9th Cir. 1988). The court further held that, “The concept of a baseline against which to compare predictions of the effects of the proposed action and reasonable alternatives is critical to the NEPA process.” Ibid.

However, the agencies have failed in this regard. In most cases, the “affected environment” section of the draft RMP/EIS simply notes presence of a wildlife species or sensitive resource,

with virtually no data on the location, status, or future trends of any species of concern. As noted above, the agency spent many resources collecting data on the location, use, and condition of routes across the Planning Area as part of the “route inventory process.” It is irresponsible that the agency would not expend comparable resources to gather similar quantities of data on the resources it is required by law to protect.

Without an adequate inventory and evaluation that create a baseline of knowledge of cultural, wildlife, special status plants, and other sensitive resources, the agencies are unable to fulfill their obligation to analyze impacts under NEPA or to preserve “monument objects.”

For example, in regard to cultural resources, the draft RMP states that, “one can reasonably expect that several thousand prehistoric and historic sites remain undiscovered on public lands in the planning areas” (3.6) Draft RMP at 404. The Monument’s cultural sites, as previously noted, are Monument objects that the agencies are required to preserve, yet there is little information presented on which to assess whether these resources are being adequately protected. Further, BLM does not attempt to provide a baseline of cultural resources that have been damaged or destroyed by OHV, vandalism, or other activities to date. Without adequate baseline information about cultural resources, it is difficult to understand the extent to which the roads will impact these significant resources, and to evaluate and mitigate the potential impacts, especially the areas where the roads will remain open or mitigated open.

Another example is pronghorn, where the RMP states that the species is present, but the only population data presented is part of a summary of all large game species, that “recent drought conditions have generally affected large game population trends.” (3.5.3) Draft RMP at 398.

Without an adequate inventory or understanding of the sensitive resources in the planning area, especially in areas where motorized travel will occur, it will be difficult to understand the extent to which the proposed transportation network will affect sensitive resources over the life of the plan.

Recommendation: Because the disclosure and identification of cultural and other sensitive resources is critical to BLM’s required NEPA analysis of the potential environmental impacts associated with proposed actions for each alternative, BLM must seek to provide appropriate, specific baseline information about cultural resources. In order to comply with the requirements of NEPA and the Monument Proclamation, the agencies must gather baseline data on all sensitive resources, but especially for each of the “Monument objects” identified in the management framework section of these comments. If the data are not readily available, the agencies must collect them using a reliable sampling strategy that focuses first on the areas most vulnerable to damage from routes and motorized travel. The agencies should assess which areas are likely to be vulnerable, which would likely focus on open motorized travel routes proposed. These data and analyses must be used in the EIS to present a full picture of the location, status, and trends of sensitive resources, such as cultural sites and wildlife, in order to comply with NEPA’s requirement to consider direct, indirect and cumulative (including reasonably foreseeable future) environmental impacts.

F. Expected Population and Use Increase

The draft RMP includes population data, but these data are incomplete for the agency to adequately evaluate the impact of population growth over the life of the RMP. The RMP states that “between 1990 and 2000, Maricopa and Yavapai Counties experienced significant population increases” and refers to Table 3-5 (which is not printed – we assume this was a typographical or layout error) (3.15.1) RMP at 416. In addition, the RMP states that “BLM’s staff noted an increase in the recreation use of public lands through analysis of the data and through personal observation.” (3.15.5) RMP at 418.

However, the RMP contains no data regarding the population growth expected over the life of the plan, or analysis as to how this growth could affect the Monument or planning area. A simple search of population projections available through the Arizona Department of Economic Security revealed that the population is expected to increase by two-thirds over the life of the RMP to over 5.2 million people in the two-county “Economic Study Area” identified by BLM (3.15.1) RMP at 415.

Population 2005-2025 of “Economic Study Area” identified in Draft RMP

	2005	2025	Percent Change
Yavapai County	175,693	260,779	
Maricopa County	3,329,561	4,948,423	
Total	3,505,254	5,209,202	67%

Source: Arizona Department of Economic Security
(<http://www.workforce.az.gov/?PAGEID=67&SUBID=138>)

Besides this explosive growth, other factors that could reasonably be expected to increase visitation to the Monument include its growing name recognition and the steady growth in the popularity of off-road vehicles and all-terrain vehicles. The draft RMP recognizes this growth in popularity, by stating “OHV use constitutes a rapidly growing recreation use of BLM’s lands. Between 1997 and 2001, the number of OHVs sold in Arizona increased from 7,964 to 23,568.” (3.15.5) Draft RMP at 418. *This is a nearly 300% increase in off-road vehicles.*

Based on these numbers, it can reasonably be expected that visitation to the Monument will increase dramatically over the life of the RMP, and that a significant amount of this growth will occur on motorized travel routes in the monument. However, most of the impact analysis appears to assume that the use level on motorized travel routes will stay approximately the same. As we have shown with the above information on population growth and the increase in ORVs, this is not a valid assumption.

Recommendation: The agencies should develop an estimate for the expected level of motorized use on routes across the Monument, acknowledging reasonably foreseeable increases in use, and consider this estimate in all impact analyses, in order to comply with NEPA’s requirement to consider direct, indirect and cumulative (including reasonably foreseeable future) environmental impacts.

G. Inadequate analysis of proposed route network on direct, indirect, and cumulative impacts on sensitive resources and “monument objects”

Previous comments to the agency have included an extensive literature review of the significant ecological impacts of roads and motorized travel on many sensitive species and cultural resources (letters submitted as part of the planning process to the BLM: (a) by the Arizona Wilderness Coalition on July 9, 2002, Appendix A and B; and (b) by the Sierra Club Grand Canyon Chapter on November 23, 2003). We incorporate these previous comments by reference. We are disappointed that none of the scientific information submitted from these previous comments is presented in the draft RMP.

We submit that the assessment of environmental impacts on cultural resources (4.12.13, RMP at 518-519) is incomplete and inadequate because it does not accurately evaluate the effect of motorized vehicles and routes on these resources. The Draft RMP correctly identifies that “a more extensive road network would facilitate public access to a larger number of archaeological sites, increasing their vulnerability to vandalism and artifact threat,” (4.12.13), RMP at 518-519. Motorized access routes drive damage from inadvertent vandalism, as well as by the intentional activity of looters. The published and gray literature supports the BLM’s assertion:

A published article addressing inadvertent vandalism from recreationists states (Sullivan et al, 2002):

“MUs [Mapping Units – observable phenomenon, such as a structure, a fire-cracked rock pile, or an artifact concentration, whose origins cannot be attributed to natural processes] impacted by camping are far more likely to be located near roads than MUs not impacted by camping. In all likelihood, the availability of level ground and ease of access to paved roads, especially for recreational vehicles, are the principle landscape features affecting peoples’ decisions about where to camp.”

A BLM and U.S. Forest Service report from the Arizona Strip indicates that the BLM should consider not only direct impacts to cultural resources (e.g. crushing or disturbance by vehicles), but also indirect effects (*i.e.* the risk of vandalism) that increases adjacent to motorized routes (Altschul and Fairley, 1989):

“Newly constructed roads will not only bring people to the [destination], but will increase accessibility to all land located near the road. Increased access increases the risk of vandalism... In general, a site is more likely to be vandalized if it is large, contains obvious features, and is easily accessible.” (p. 312)

In addition, a published scientific article is forthcoming from Jerry Spangler of the Colorado Plateau Archaeological Alliance (2529 S. Jackson Ave., Ogden, Utah 84401, 801-392-2646, info@cparch.org):

“Using data collected from Range Creek Canyon and nearby Nine Mile Canyon, CPAA is involved in a major study of the relationship of unrestricted road access to

archaeological site vandalism. Using an environmental sample that includes an area protected from vehicular access and an equal, adjacent and environmentally identical area that has been exposed to decades of unrestricted access, researchers have demonstrated that roughly 80 percent of sites within 100 meters of an unrestricted road have been vandalized, most of them severely and many to the point all scientific value has been erased. Fewer than 10 percent of sites behind the locked gates were vandalized, and in almost all instances, the vandalism was minimal and some scientific value remained. This model provides land managers with important data: If roads are built and/or access is improved, archaeological resources along those routes will likely be destroyed.” (<http://www.cparch.org/projects.htm>)

When this account is published, we will forward it to the agencies for your full consideration.

In order to be adequate, the draft RMP impact analysis should estimate the scale of these potential effects over the life of the plan, considering all of the following: (1) the location of cultural resources (and carrying out additional inventory work to identify these resources within an appropriate impact zone around travel corridors), (2) the increase in use over the life of the plan; and (3) the potential loss to scientific investigation and cultural preservation.

Recommendation: The impact analysis must identify, in detail, the negative impact that motorized access routes can pose to cultural resources, in order to comply with NEPA’s requirement to consider direct, indirect and cumulative (including reasonably foreseeable future) environmental impacts. Since cultural sites are “monument objects,” the agencies should assess where sites are at risk (in line with the 3 points above), and close routes to reduce that risk.

We submit that the assessment of environmental impacts on wildlife resources (4.11.12, RMP at 500-501) is also incomplete and inadequate because it does not accurately evaluate the effect of motorized vehicles and routes on these resources. Scientific literature is available documenting direct and indirect impacts on wildlife species, and has been previously submitted to the BLM in comments throughout this planning process (see comments incorporating previous AWC and Sierra Club comments, above). We again incorporate our previous comments by reference, and will reiterate some of the key scientific references available.

Adverse effects of roads on wildlife have been well documented in several recent literature reviews (Trombulak and Frissell 2000, Gucinski et al. 2001, Gains et al. 2003, Wyoming Game and Fish Department 2004, and New Mexico Department of Game and Fish 2005). Some literature provides general information and guidelines on the impacts of different types of motorized routes and related activities on specific species. Others go further and give specific thresholds that can be used to predict the impacts of specific degrees of habitat fragmentation from roads on species. Yet, the Draft EIS does not tap this wealth of information in the peer review and government agency literature.

These literature reviews specifically cite papers that study the impacts of roads on wildlife species found in the Planning Areas including pronghorn, desert tortoise, mountain lion and big game species. As mentioned above, in 2004 we submitted a report *Protecting Northern*

Arizona's National Monuments: The Challenges of Transportation Management (Thomson et. al 2004), demonstrating the use of such literature in conjunction with the fragmentation metrics to predict impacts on wildlife species (attached for your review). We have also produced two additional reports with similar techniques *Ecological Effects of a Transportation Network on Wildlife: A Spatial Analysis of the Upper Missouri Breaks National Monument* (Hartley et. al 2003) and, most recently *Wildlife at a Crossroads: Energy Development in Western Wyoming, Effects of Roads on Habitat in the Upper Green River Valley* (Thomson et. al 2005).

The effects of transportation features on terrestrial and aquatic wildlife include mortality from collisions, modifications of animal behavior, disruption of the physical environment, alteration of the chemical environment, spread of exotic species, and changes in human use of lands and water (Trombulak and Frissell 2000). Examples are habitat loss and fragmentation; diminished animal use of habitats because of noise, dust, emissions, and the presence of humans; loss of forage for herbivores; interference with wildlife life-history functions (courtship, nesting, migration, and others); spread of non-native species that are introduced by vehicles and that alter the availability and use of habitat; increased poaching or unethical hunting practices; increased dispersion of recreation impacts, particularly by off-road vehicles; and degradation of aquatic habitats through alteration of stream banks and increased sediment loads.

Information from biological field literature is present for many species in the Planning Areas, however it is not always as comprehensive as would be ideal for management decisions on motorized routes. More literature is needed on the specific effects of motorized routes and their associated human activities on the species present. However, science cannot always provide clear and certain answers to important questions about potential environmental impacts in a timely fashion, especially in the absence of adequate field data. Lack of accurate boundaries for wildlife habitats and an incomplete understanding of the impacts of roads on wildlife are real problems that demand additional research. But such gaps in knowledge should not stop or delay decisions to protect wildlife resources and reduce the number and mileage of routes across a landscape. Below we present a literature review for five species present in the Agua Fria and Bradshaw-Harquahala Planning Areas.

Pronghorn

Pronghorn are a free-ranging species that must be able to move freely across an open landscape for food, habitat, and mates. Pronghorn are likely to be affected by the same types of human disturbance as mule deer, but are known to have a more sensitive flight response (WGFD 2004). Pronghorn will cross roads, however they are strongly affected by fencing along paved roads. Van Riper and Ockenfels (1998) found that this factor was the greatest barrier to dispersal; in more than 3,000 movements that were recorded, not one pronghorn ever crossed a fenced road. It is unknown how much of the Planning Area road network is fenced.

Route Fragmentation Threshold Values: A central Arizona study showed that pronghorn generally exhibited a weak avoidance of areas within 0.6 miles of a maintained road or areas near unmaintained dirt roads and four-wheel-drive trails (Ockenfels et al. 1994). The same study observed that males (and perhaps females) avoided habitat within 0.25 miles of highways. However, it may be that Pronghorn are more strongly affected by the noise and activity associated with a road than the road bed itself (Ockenfels et al. 1994).

Desert Tortoise

In a review of cumulative threats to tortoise populations prominent biologist Dr. William Boarman stated: “Perhaps the most important general threat to tortoise population relates to actual human presence in tortoise habitat and thus refers to access.” (Boarman 2002b) The substantial impacts of human access need to be considered for all transportation management decisions for the desert tortoise habitat in the planning areas.

Paved and unpaved motorized routes have direct and indirect negative affects on desert tortoise populations (Boarman et al. 1997). Direct impacts include restriction of movement, mortality from crushing, destruction of tortoise burrows and destruction of habitat (Boarman 2002a, Boarman 2002b, USDOJ 1994). These impacts are caused by street vehicles and ORVs (Boarman 2002b).

Indirect impacts include fragmentation of tortoise habitat, removal of individuals from illegal collection, intentional or unintentional injury by humans, loss of forage due to invasive species, and loss of forage due to soil compaction and increased predation (USDOJ 1994, Boarman 2002b). Habitat fragmentation may lead to local extinctions, inbreeding, inbreeding depression, smaller populations that are more susceptible to disease or other catastrophic event, restricted gene flow and loss of genetic diversity (Boarman 2002b). The increased human presence near roads can lead to the intentional removal for collecting or injury of animals as well as the inadvertent injury from human handling (Boarman 2002a and Boarman 2002b). Motorized routes (including ORV routes) provide a conduit for native species that may push out tortoise forage species (Boarman 2002b). Soil compaction in some soil types can be caused by off road vehicle travel that reduces the moisture content of some soils and/or causes erosion, which limits the soil’s ability to support forage species. Boarman (2002b) also cites examples of the problem of preventing off route travel even where the BLM has explicitly signed the designated routes for ORV use.

Another indirect impact is increased predation from species such as ravens. Juvenile and subadult tortoises are particularly at risk from transportation routes. Juvenile numbers have been found to be depressed near dirt or paved roads (Berry and Turner 1984), while dispersing subadults are at high risk because they are more likely to encounter roads the further they travel (Boarman and Sasaki 1996). It has been observed that roads may also concentrate ravens, which prey upon juvenile tortoises; 250 tortoise shells were found beneath one raven nest alone (Boarman 1997). Late sexual maturity (15 to 20 years) and low reproductive rates make desert tortoise populations especially vulnerable to influences such as the effects of roads (Boarman 2002a).

Even if these above threats are relatively low individually, they may have a large cumulative effect (Boarman 2002b). Cumulative human impacts such as habitat fragmentation and habitat destruction from roads have led to declines in almost all desert tortoise populations (USDOJ 1994). Population declines led to the listing of the desert tortoise as a threatened species under the federal Endangered Species Act.

Route Fragmentation Threshold Values: The scientific literature documenting the direct and indirect impacts of roads on the desert tortoise indicates some route fragmentation threshold values for paved routes. The scientific literature has demonstrated that tortoise signs decrease with proximity to paved roads beginning from 0.2 miles (LaRue 1993) 0.5 mile (Nicholson 1978) from a road. Similarly, Boarman and Sazaki (1996) found fewer tortoise signs in sampling transects immediately adjacent to a highway or at a 0.25-mile distance, but that tortoise signs were more numerous at 0.5 miles and 1 mile from a highway. Similarly a depression in individuals present was found within 0.3 mile of a road by Boarman (1994). A study in southern Nevada (Von Seckendorff, Hoff and Marlow 2002) showed reduced tortoise signs as far as 2.5 miles from a highway and that the higher the density of traffic (220 to 5000 vehicles a day), the greater the zone of impact.

Impacts are expected to be less for a road that is narrower or less used but more field research is needed to quantify those measures (Boarman 2002b). While no specific route fragmentation thresholds on population depression are available for dirt roads, evidence is available to show that dirt roads and ORV routes also have negative effects on this species. Low-intensity vehicle routes, including unpaved utility access roads (Von Seckendorff Hoff and Marlow 2002), have been shown to depress tortoise population numbers (Berry et al. 1986). Bury and Luchenbach (2002) compared nearby off-road vehicle (ORV) and non-ORV plots and discovered roughly four times the number of tortoises and tortoise burrows and higher body weight animals in the non-ORV plot. Even if ORV activity is prohibited, more roads lead to more opportunities for inappropriate off route ORV activity (Boarman 2002a), and more roads lead to a more rapid decline in tortoise populations (USDOI 1994, see Berry 1990 as amended and 1992).

Mountain Lion

Roads affect mountain lion populations by decreasing the quality of habitat through fragmentation. Large carnivores, and mountain lions in particular, are especially vulnerable to road networks because of their need for large home ranges, sensitivity to habitat fragmentation, and low population growth rates (Ruediger 1998, Crooks 2002). Roads also increase the potential for mortality through collisions with motorized vehicles and hunting and trapping. In addition, the primary source of mortality for most mountain lion populations is legal hunting (Murphy et al. 1999), which is further enabled by road access.

Several studies demonstrate that mountain lions avoid paved roads (Van Dyke, Brocke and Shaw 1986, Swenor et al. 2000, Dickson and Beier 2002) and prefer habitat areas with lower road densities (Van Dyke, Brocke and Shaw 1986, Dickson and Beier 2002). Mountain lions have been observed to skirt logging areas, both while a timber sale is active and for several years thereafter, either by avoiding roads or changing to nocturnal behavior (Van Dyke, Brocke and Shaw et al. 1986). In a study in northern Arizona and southern Utah, Van Dyke, Brocke and Shaw (1986) found that mountain lions established home ranges in areas where improved dirt roads or paved roads were either under-represented, in comparison to the entire study area, or entirely absent. Similarly, researchers in southern California showed that mountain lions established home ranges further from roads than was typical in the overall study area (Dickson and Beier 2002). Dickson and Beier (2002) concluded that new roads in wild areas will force mountain lions out of previously occupied habitats. Van Dyke, Brocke and Shaw (1986)

observed that mountain lions on the Kaibab Plateau did not appear to cross paved or dirt roads in their home ranges.

Many factors in addition to the type of route (paved or dirt) influence how close a mountain lion will approach a road, including vegetation type and whether the road is in an established home range or a migration area (Dickson and Beier 2002, Dickson et al. 2004). While the literature suggests mountain lions tend to use habitats further from transportation routes, these animals have been observed on trails and remote dirt roads when dense vegetation makes travel difficult (Dickson and Beier 2002, Dickson et. al 2004).

Route Fragmentation Threshold Values: The relationship between mountain lions and routes is complex, but the literature does suggest threshold values. In a study of radio-collared animals on the Kaibab Plateau, mountain lions were shown to avoid using habitat with a road density of 1 mi/mi² in timber sale areas versus 0.64 mi/mi² in the rest of the study area (Van Dyke, Brocke and Shaw et al. 1986). The authors suggest that this avoidance may be due to several factors, including the presence and activity of humans, increased road density and human access (including hunting pressure), altered prey densities, and altered habitat such as removal of stalking cover. Forman and Alexander (1998) also suggest that a road density of 1 mi/mi² is the maximum for a “naturally functioning landscape” that can sustain large predators, including mountain lions. Route proximity impacts on mountain lion habitat use remain poorly studied; however, limited data from a study in southern California (Dickson and Beier 2002) suggest that mountain lions prefer areas 0.3 miles to 0.6 miles from a high speed road.

Bighorn Sheep

Transportation routes adversely affect desert bighorn sheep by inducing road avoidance behavior, creating barriers to dispersal, and limiting movement across open landscapes to locate food, habitat, and mates. Of the ungulates in the Planning Areas, bighorn sheep appear to be the most susceptible to the effects of human disturbance (Canfield et al. 1999). In a southern Utah study, bighorn sheep were found to spend time significantly further away from roads in high human use areas (Papouchis et al. 2001). The same field study noted that bighorn exhibited the greatest avoidance of humans traveling by foot, followed by humans in vehicles and on bicycles. In southern California, researchers found that bighorn probably were forced into less suitable habitat because of vehicles. Bighorn activity decreased by 50 percent when vehicles were present on unpaved roads (Jorgensen 1974). In an experiment conducted by Rubin et al. (1998), four of eight ewe flocks of bighorn sheep were separated by paved roads because ewes rarely crossed the paved roads or highways.

Route Fragmentation Threshold Values: The literature record is clear that bighorn sheep are sensitive to roads, although there are few studies that attempt to quantify the distance where this impact could occur. However, Papouchis et al. (2001) observed that the bighorn sheep defense radius was 0.23 miles and their flight response radius averaged 0.08 miles.

Mule Deer

Roads affect mule deer populations by fragmenting their habitat, creating barriers to dispersal, and increasing mortality through collisions with vehicles. Since mule deer have been shown to avoid human activity associated with roads (Lutz et al. 2003), the habitat that is adjacent to roads

may not be used to its full potential. A study in a North Dakota energy development area observed that active deer used habitat within 316 feet of a road less than its availability, while bedded deer avoided habitat within 158 feet of a road (Fox 1989).

Route Fragmentation Threshold Values: A study in a North Dakota energy development area observed that active deer used habitat within 316 feet of a road less than its availability, while bedded deer avoided habitat within 158 feet of a road (Fox 1989). Avoidance of roads and developed facilities was documented over more than seven years, indicating a long-term and chronic loss of habitat (Jensen 1991). Rost and Baley (1979) used mule deer pellet counts as an indication of winter habitat use, reporting lower density of deer along heavily used roads as compared to less frequently used roads. Their data show that deer were three times more likely to occur from 0.18 to 0.25 miles from a road than 0.06 miles from a road.

Recommendation: The impact analysis must identify and evaluate, in detail, the negative impact that motorized access routes can pose to these wildlife resources. In particular, for all the wildlife species identified as “monument objects,” the impact analysis should estimate the scale of this potential effect over the life of the plan, considering all of the following: (1) the habitat of each wildlife species, including all species listed as a Monument object (and carrying out additional inventory work to identify these resources if the data are unavailable); (2) the population trend for the species, including the cause of any threat(s); (3) and the increase in motorized use on designated routes over the life of the plan; and (4) the potential impact of motorized recreation on the long-term viability of these species. This evaluation should include references to the scientific literature cited above, as well as that submitted previously. This is necessary to present an adequate analysis of impacts to wildlife resources from a transportation network, and therefore to comply with NEPA’s requirement to consider direct, indirect and cumulative (including reasonably foreseeable future) environmental impacts.

In regards to the Bradshaw-Harquahala planning area, we are aware that IM No. 2004-005 allows BLM to delay route designation for five years in this planning area, but it does instruct BLM to use the open, closed, and limited designations. The concerns related to cultural resources and wildlife outlined here should also be assessed in the Bradshaw-Harquahala planning area in alternatives and the affected environment sections of the RMP in regards to travel management. Furthermore these issues should be addressed in the future route designation process.

H. Agencies should perform spatial analysis to determine the impact of proposed route network on sensitive resources and “monument objects”

An appropriate way for the agencies to meet their obligations for evaluation of the direct, indirect and cumulative impacts on natural and cultural resources is to conduct spatial analysis of the extent of motorized routes and fragmentation caused by those routes relative to the position of objects of interest in the Proclamation. This should be combined with the best literature projecting the impacts of roads and fragmentation on the wildlife species and other resources. Ideally such an analysis would be used to both generate and to evaluate the alternatives as presented in the Draft EIS in Chapter 4, Environmental Consequences.

We understand that additional wildlife research is needed to better understand the impacts of roads and ORV routes on wildlife. However, much literature is already available, yet was not referred to in the impacts section of the Draft EIS. Adverse effects of roads on wildlife have been well documented in several extensive literature reviews (Trombulak and Frissell 2000, Gucinski et al. 2001, Gaines et al. 2003, Wyoming Game and Fish Department 2004, and New Mexico Department of Game and Fish 2005).

These literature reviews specifically cite papers that study the impacts of roads on wildlife species found in the monument including sage grouse and big game species. In 2004 we submitted a report *Protecting Arizona's Northern National Monuments: the Challenge of Transportation Management* (Thomson et. al 2004, attached) demonstrating the use of such literature in conjunction with the fragmentation metrics to predict impacts on wildlife species. We were disappointed to see that after this submission, no specific analysis of habitat fragmentation from roads such as route density, buffers, or core area sizes were calculated and compared to species specific habitat needs.

Recommendation:

To protect wildlife identified in the Proclamation and make informed road management decision we are repeating our earlier request that the BLM use spatial analysis (GIS) techniques and the latest wildlife data and research to evaluate the impacts of the route system in each alternative:

1. Assemble wildlife habitat use information through compliance with agency obligations to use “accurate scientific information” of “high quality,” and in sufficient quantity to perform the requisite thorough analysis. Information on the impacts of roads on wildlife can be collected from the published literature available for threatened and endangered species and other key plant and animal species in the area. The goal is to provide data needed to devise the parameters of fragmentation metrics and interpret the results. The information should include, but not be limited to, distribution of habitat types, the impacts of road density on local species, the distance of road effects to determine the width of effect zones for infrastructure features, and species dispersal distances to evaluate the size of core areas. As previously noted, we have already submitted scientific literature that could be used for this purpose.
2. Generate transportation network scenarios based on the multiple resources the BLM is required to manage using reliable data and high-quality analysis.
 - Generate GIS data layers for all roads in each proposed transportation network alternative in a draft environmental impact statement.
 - Limit the potential transportation network scenarios to those that achieve long-term protection of a region’s many resources for multiple use.
 - Limit roads included in the scenarios in order to: (i) eliminate user-created “wildcat” (illegal) routes in the transportation system; (ii) ensure that each road is justified and managed through an analysis of impacts on resources at the level required by NEPA, taking into account spatial patterns of roads in addition to road length; (iii) ensure that each road is necessary for its specified and defined uses.

3. Calculate landscape fragmentation metrics for all road network alternatives, guided by the best available science and supporting studies conducted in accordance with sound and objective scientific practices. Include, at a minimum, road density, road effect zones, and core areas. Metric parameters and the evaluation of results should be relevant to ecological conditions, species that are present, and human uses of the landscape. In the previous section, we recommended “threshold values” for desert tortoise, pronghorn, mountain lion, bighorn sheep, and mule deer, that are supported by the scientific literature and could be applied to this step.
4. Integrate the results of fragmentation analysis into management plan alternatives and use them as the basis for selecting the preferred alternative. Evaluate landscape fragmentation metrics for alternative travel networks to determine the impacts on specific local species and the necessary actions to protect habitat. Incorporate the results into proposed management alternatives. Through the application of the metrics to relevant ecological conditions and other uses, evaluate the direct, indirect, and cumulative impacts of the various alternatives. The preferred alternative should be determined and modified based on the metrics with an objective to reduce impacts on wildlife. Include these wildlife impacts with other ecological impact data in the planning documents throughout the land-use planning process and subsequent management or land-use decisions.

This analysis, once undertaken, would help the BLM assess whether its proposed route network is likely to negatively affect sensitive species. The agencies should take a conservative approach and err on the side of protecting species and reduce routes density preserve core habitat areas. This recommendation is in concert with the “precautionary principle” of conservation biology, which states that precautionary measures should be taken when a certain activity or inactivity threatens to harm human health or the environment, even when science has not fully established cause and effect relationships. This principle is rooted in the recognition that scientific understanding of ecosystems is complicated by numerous factors, including dynamic ecosystem processes and the various effects of human activities. Put simply, it is easier to prevent harm to biodiversity than to attempt to repair it later. This is critical in the Monument where the agencies' primary duty is to protect “objects of interest” and endangered species.

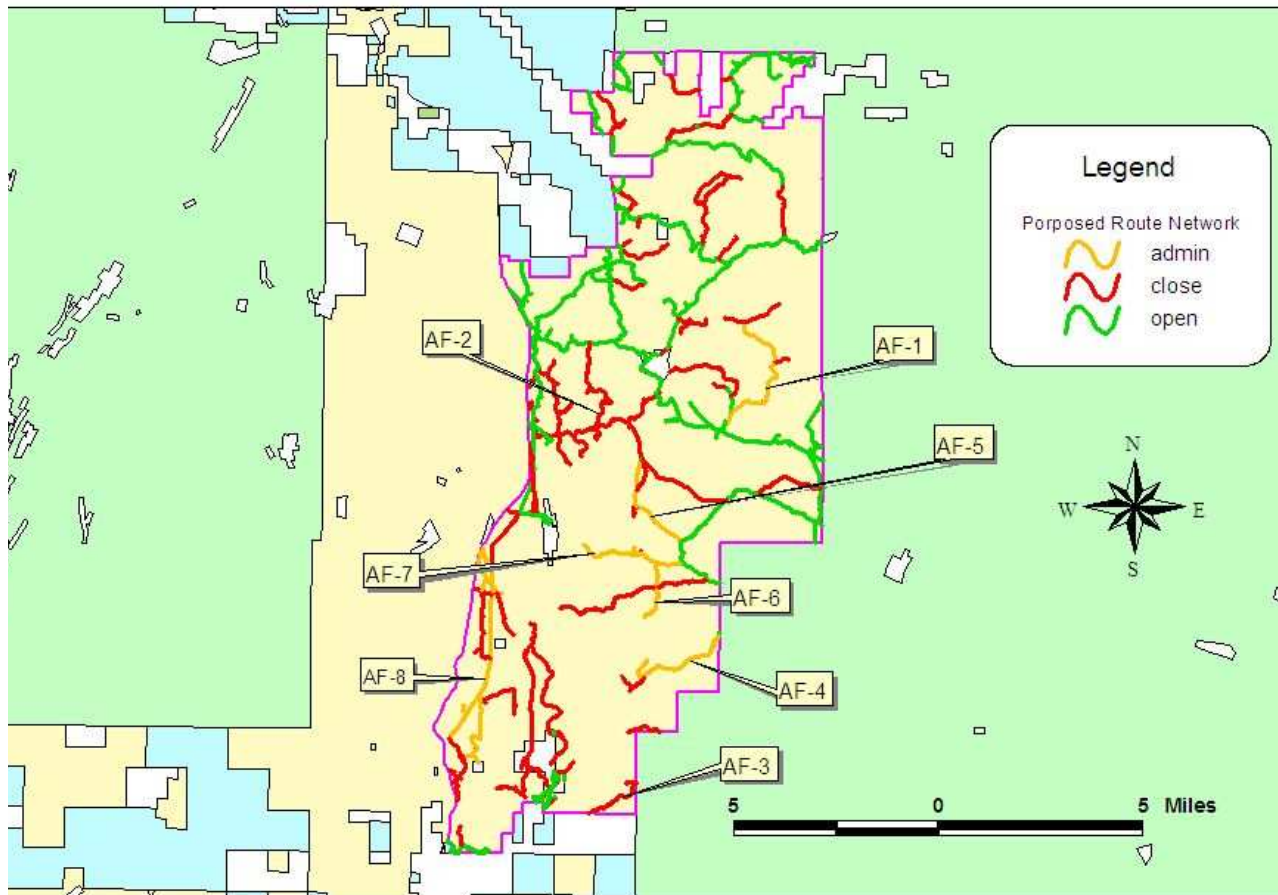
In addition, and similar to the recommendation in section IV.G in the comments above, for the Bradshaw-Harquahala Planning Area, we recommend that the BLM undertake this type of analysis when it begin a future route designation process. The concerns related to cultural resources and wildlife outlined here should be assessed in an environmental impact analysis for the affected environment and environmental impact sections of an analysis.

I. Failure to thoroughly consider Citizens' proposal, and specific recommendations for changes to the Preferred Alternative

We are disappointed that the agencies did not consider a citizens' proposal for travel routes submitted by a coalition of groups including the Sierra Club and the Center for Biological Diversity (comments incorporated by reference from November 25, 2003). This proposal was formally submitted as part of a public comment period on the "preliminary range of alternatives" in November 2003, and was the subject of several subsequent conversations with the agencies. At each of these times, we formally requested that this proposal be considered as part of the RMP/EIS process. While Alternatives C and D come closest to our proposal, it is still quite different and the agencies have neither presented a justification for failing to consider the Citizens' proposal nor identified the manner in which the Citizens' proposal was incorporated in other alternatives. Based on all the comments and recommendations above concerning impacts and inadequate analysis in the Draft RMP, we are concerned that the preferred alternative will cause unacceptable negative effects on sensitive resources protected as Monument Objects. In particular, we are concerned that several routes proposed as open in the preferred alternative will threaten archaeological sites and pronghorn.

Recommendations: In order to alleviate these impacts, we recommend the following changes to the route network presented on Map 2-76 of the RMP:

Proposed Transportation Network



ROUTE ANALYSIS

Total Miles of Routes in Monument: 173.8

Recommendations

Open: 74.7 miles

Closed: 75.2 miles

Analyze for administrative use: 24.0 miles

Please note that this proposal is also being submitted in digital format (GIS data files) under separate cover to the BLM from Jason Williams of the Arizona Wilderness Coalition.

AF-1- 4.1 miles-This route accesses an unnamed stock tank in T 10 N. R. 3 E. Section 2. This route passes close to numerous archeological sites that were easily found during the AZ Wilderness Coalition surveys. These sites are most likely uninventoried by BLM. Since this is formal public comment the exact locations will not be shown, please contact us for this information. As clearly outlined above the possibility for degradation to sites increases with road access. This road also crosses the riparian area in silver creek and passes the head of long

gulch. Roads and their use clearly impact riparian vegetation, water quality, and watershed functions. This route should be closed to public use and studied for administrative use to maintain the existing grazing facilities. If this route is found unnecessary for range management, it should be closed and obliterated.

AF-2- 1.5 miles-This is the location of the Off Road Vehicle route to be constructed. We are concerned that the BLM has proposed creating one mile of new route in the Preferred Alternative (2.6.1.9) Draft RMP at 168. Map 2-76. In section (2.6.1.9) the RMP states, “Allow building of routes for access to public lands around privately owned parcels (inholdings), if needed to meet administrative or public needs. To increase access and provide an interpretive motorized opportunity for ATVs in T. 10 N., R. 3 E., Section 10, build a new route to connect existing routes.” As stated previously, the Monument Proclamation is clear that “for the purpose of protecting the objects identified above, the Secretary of the Interior shall prohibit all motorized and mechanized vehicle use off road...” (emphasis added). Since it currently does not exist, any new route would by definition be off road, and is therefore illegal under the Antiquities Act. There is no rationale for how this action will achieve the goals of protecting monument objects. In order to abide by the Monument Proclamation and the Antiquities Act, we recommend that the BLM not build or create any new roads in the Monument.

AF-3- 1.5 miles-This route goes to the southern edge of Perry Mesa above Squaw Creek following an old power line that is no longer in service. It is very rough and eroded. It also accesses an unnamed stock tank just before entering the monument boundary and therefore could be closed at the monument boundary as recommended in the map above. BLM must provide rationale for why this route facilitates the protection of monument objects; otherwise it should be closed to all use and obliterated.

AF-4- 3 miles-This route provides access to Lousy Tank. It should be closed to public use and studied for administrative use to maintain the existing grazing facilities. If this route is found unnecessary for range management, it should be closed and obliterated. There are numerous archeological sites in close proximity to this route and the tank. The last spur that drops to the tank appears to be below possible terracing for agriculture from prehistoric times.

AF-5- 2.6 miles- This route provides access to Batt tank, Pipe Tank, and Pipe tank No. 2. It should be closed to public use and studied for administrative use to maintain the existing grazing facilities. If this route is found unnecessary for range management, it should be closed and obliterated.

AF-6- 1.6 miles-This route provides access to unnamed tank in the head of Lousy Canyon. It should be closed to public use and studied for administrative use to maintain the existing grazing facilities. If this route is found unnecessary for range management, it should be closed and obliterated.

AF-7- 2.9 miles-This route provides access Bobs and Joes Tanks. It should be closed to public use and studied for administrative use to maintain the existing grazing facilities. If this route is found unnecessary for range management, it should be closed and obliterated.

AF-8- 9.6 miles- This encompasses many spur routes on Black Mesa used to access the utility ROW and some private land. All of these routes should be closed to the public as this is valuable pronghorn habitat that is increasingly impacted by roads and their use. Administrative use should be studied to determine which uses should occur and to what extent they are necessary.

All of these routes cross through pronghorn habitat and/or fawning areas, except for route AF-2. It seems that the rationale that routes needed for administration of livestock facilities should be open to the public needs to be revisited considering that many of these routes present serious conflicts with the protection of monument objects, specifically cultural sites, pronghorn habitat, and riparian areas. BLM must make decisions on routes based on protection of monument objects in order to comply with the proclamation. Much of the scientific literature clearly states that roads have negative impacts on archeological resources, pronghorn fawning success, and riparian areas. If these routes are to be kept open to the public BLM must prove that their presence and use will facilitate the protection of monument objects, not just that they have a negligible impact.

Scenic Backcountry Byway. We are also concerned that the preferred alternative proposes to designate Bloody Basin Road as a Scenic Backcountry Byway (2.6.1.1) Draft RMP at 157. Map 2-72. As previously stated in this document, the BLM is obligated to explain how this special designation would contribute to conservation of Monument objects, which was not done, and we believe cannot be substantiated, for this proposed management action.

Currently, the impact analysis states, “Since the road would be maintained to BLM type three standard, which would require high-clearance vehicles to traverse it, the increase in visitation is expected to be small” (4.6) Draft RMP at 428. However, this statement is unsupported by any actual data. Instead, as stated previously in these comments, the Draft RMP provides data showing a 300% increase on off-road vehicles, and states that “OHV use constitutes a rapidly growing recreation use of BLM’s lands” (3.15.5) Draft RMP at 418. Based on this, and the expected increase in visitation due to population increase and growth in popularity of the Monument over the life of the plan (see section IV.E of these comments, above), it is clear that visitation could be expected to increase dramatically on Bloody Basin Road, especially when assisted by promotion as a Scenic backcountry Byway. As previously stated in this document, additional motorized road access is likely to result in significant negative impacts to cultural sites and other Monument Objects.

Recommendation: So as to preserve Monument objects, we recommend that the BLM not designate any Scenic Backcountry Byways in the Monument.

J. Potential motorized use off of designated routes

The intent of a designated route network is to limited motorized use to specific routes, and restrict use on closed routes, administrative routes, or cross-country. However, the BLM should recognize that some users will break the rules and travel off designated routes. Therefore, the BLM should analyze impacts accordingly, as well as including specific management actions that will reduce travel off of designated routes.

If designated routes are not clearly indicated on a widely-accessible map and appropriately signed, then it is likely that users may travel onto administrative routes or closed routes that are visible. Even the BLM's own Oil and Gas Surface Operating Standards for Oil and Gas Exploration and Development, also referred to as the "Gold Book," recognizes the associated impacts from roads and oil and gas development:

Oil and gas roads that are not closed to public use (through the use of gates or other traffic control devices) have the potential to serve secondary uses such as providing access for hunters and other recreational users who are not familiar with the road and area... In addition, roads have the potential to cause environmental harm through erosion, air pollution, stream degradation, habitat alteration, and increased public use of an area. [4th Edition, 2005, p. 16]

Although this quote refers to oil and gas roads, the same logic applies to all visible, ungated routes, which could include administrative and closed (but not yet restored or blocked) routes. If the route is visible but unblocked, motorized users could use it, even if it is against the rules. Agua Fria and the rest of the planning area have limited staff, and existing law enforcement rangers cannot be everywhere all the time.

In addition, some users may also leave designated routes and travel cross-country, even if it is against the rules. Education alone is often not sufficient to control all ORV users. Two recent studies on ORV rider behavior point to the challenges of their ability to enforce compliance with a system of designated routes:

A 2001 study conducted by Monaghan and Associates of Denver, Colorado, and commissioned by the Colorado Coalition for Responsible OHV Riding (Monaghan and Associates, 2001) found that ". . . knowing that going off trail is not 'correct' OHV behavior, as many as two-thirds of adult OHV users go off the trail occasionally." This study concludes: "In a 'nutshell,' it is our premise that further **information** and **education** per se – will not result in substantial behavioral change" (emphasis in original).

The Utah Division of Parks and Recreation commissioned Utah State University to survey riders who had registered their ORVs in 2000 to determine their "OHV uses and owner preferences (IORT 2002)." The report reveals that an inordinate number of riders prefer to ride "off established trails" (emphasis added). Of the ATV riders surveyed, 49.4 percent preferred to ride off established trails, while 39 percent did so on their most recent excursion. Of the dirt bike riders surveyed, 38.1 percent prefer to ride off established trails, while 50 percent rode off established trails on their most recent excursion. When surveyed on issues affecting OHV use in Utah, survey respondents recognized the need for enforcement but not the need for protection of the natural resources where they ride, further throwing into question the assumption that ORV riders will stay on-route if educated that this is the rule. The study found that "one-third of the respondents said there should be more law enforcement presence in OHV" (p. 38, drawing from Table 4.5 on p. 30). Only 6 percent cited "resource management

conservation” as the most important issue affecting OHV use in Utah (p. 40, drawing from Table 4.8 on p. 33).

While these studies are not from Arizona, they do indicate that ORV recreationists will ride off of designated routes. This information can be applied to the Agua Fria and Bradshaw-Harquahala planning areas.

Recommendation: BLM should include specific management decisions that will make it easy for ORV users to stay on designated routes, such as: (1) by providing a detailed and widely available map of available open routes; (2) signing routes that are open; (3) gating administrative routes; and (4) obliterating the “entrance” to closed routes as soon as possible to reduce their visibility. In addition, the BLM should identify, quantify, and analyze the likely impacts of motorized use off of designated routes in both the “affected environment” and “environmental impact” sections of the EIS.

K. Mitigation

NEPA requires BLM to “[i]nclude [in the EIS] appropriate mitigation measures not already included in the proposed action or alternative.” 40 C.F.R. 1502.14(f). The analysis should include “a discussion of possible mitigation measures to avoid adverse environmental impacts... and must be reasonably complete in order to properly evaluate the severity of the adverse effects of a proposed project prior to making a final decision.” Colorado Env'tl. Coalition v. Dombeck, 185 F.3d 1162, 1173 (10th cir. 1999)(internal citations omitted). Mitigation measures should be supported by analytical data. Idaho Sporting Congress v. Thomas, 137 F.3d 1146, 1151 (9th Cir. 1998).

There is very little information presented in the Draft RMP regarding mitigation, such as what impacts BLM will be mitigating, or what methods will be used to mitigate.

Recommendation: BLM must provide specific mitigation measures that seek to avoid, minimize, or mitigate adverse effects to sensitive resources within the preferred alternative and environmental consequences analysis of the RMP for each proposed management action, including roads, grazing decisions, and recreational proposals such as ORV designations.

III. BLM SHOULD AMENDS ITS TRANSPORTATION PLANNING PROCESS

This section addresses several issues with the use of the “Route Evaluation Tree” (© ARS, Inc.). We support your concept to create a process to collect information on the impacts of various routes in order to generate alternatives in a uniform and documented process. However, very little information is presented regarding the route designation process itself, or the BLM’s findings during the route designation process for the Monument. For example, while the Route Evaluation Tree © analyzes each route individually, no information on impacts is presented for any route. Without this information, it is impossible for the public to understand how the BLM made its decision, and assess the impacts to sensitive resources.

Recommendation: BLM should present the results of the Tree © analysis for each route in Agua Fria National Monument. Without this information, the analysis of direct, indirect, and cumulative impacts associated with motorized travel is inadequate and incomplete.

In addition, as previously communicated to the Arizona BLM on several previous occasions, we continue to hold that the Tree © in its most recent form is overly simplistic and fails to acknowledge several key issues that are critical for informed route designation decision-making.

We recommend that the Bradshaw-Harquehala office decline to use the Tree© for future route designation in the rest of the planning area. We also submit that the “Tree” is not an evaluation tool, but is instead merely a data-gathering device that collects information into a computer database. While we fully support collecting data into a reproducible and transparent form, such as a computer database, there are many simple and cost effective ways to do this with widely-available database and/or spreadsheet programs. Applying the Tree© software requires a significant investment of taxpayer dollars, which seems unwise in the face of declining federal budgets and when the agency could achieve similar electronic data collection through other common database and/or spreadsheet programs.

However, if the BLM chooses to incorporate the Tree© into the future route designation process, we have several recommendations for how it should be modified. If possible, we would also like to see these recommendations implemented and re-applied to the Agua Fria route designation process.

We realize that the Tree© is but one step in a multiple-step process, and that the agency intends to gather other information in earlier or later steps, such as in regards to legal obligations and cumulative impacts. However, the Tree© data-gathering process is quite extensive, and channels evaluators down a branch that generally leads to a range of alternatives for that route. Therefore, it seems common-sense that these other information needs be incorporated into the data summary that is the result of the Tree© process.

Therefore, we recommend that other information needs be incorporated so as to simplify the agency’s job by having all relevant information summarized in one database/spreadsheet. Currently, the Tree© does not incorporate BLM’s obligations under the Executive Orders, ORV regulations, NEPA, ESA, NHPA, Monument Proclamations, and National Conservation Area Legislation. We understand that ARS can customize the Tree© by adding inquiries, and we recommend that the agency require this so as to ensure your legal responsibilities are met.

Recommendation: We recommend the following modifications to the Route Evaluation Tree ©.

1. Tree© should eliminate yes/no questions, and remove the Branches that imply an order of issues to be raised: By phrasing the data-gathering inquiries as yes or no answers and by placing them in the order shown, the Tree© inevitably implies decision-making and sheds its promise as a data-gathering tool. The format of the Tree© implies that once a question is “answered” and the next “step” is taken, the decision or evaluation of the

route in question has concluded that it can remain open despite any potential impacts or damage. In order to remedy this problem, the inquiries should be phrased to report all information on a route, including impacts (i.e., sensitive resource affected and description of effects), valid rights-of-way or permitted uses, condition, maintenance records, and use levels, all of which can then be evaluated in the appropriate context.

2. Tree© should incorporate information on potential cumulative impacts: Routes should be evaluated in the context of the overall landscape and in combination with others – an inquiry that the Tree© absolutely fails to make. In order to comply with NEPA, the Tree© must gather information regarding how—and to what degree—the designation of individual routes as either open or limited would cumulatively affect sensitive and non-sensitive resources, using such factors as increasing road density, amount of habitat fragmentation, risk of spreading non-native species, erosion, impacts to the experiences of non-motorized recreationists and other users, etc. In addition, the Tree© must inquire not only about the cumulative impacts of the routes under consideration, but also regarding how the severity of such impacts may be influenced by other past, present and reasonably foreseeable future actions of others. If other nearby areas are, or will be, affected by motor vehicle use, then the addition of more routes in a relatively primitive area is likely to have a greater impact on the environment.

For example, the agency should collect ecological data and perform spatial analyses that address direct, indirect and cumulative impacts before any Tree© questions regarding impacts are asked and before any alternatives are developed. If the BLM were to conduct spatial analyses of habitat fragmentation (which has been previously recommended by The Wilderness Society and others), it would provide vital understanding of the impacts of a route and contribute to the development of a range of alternatives. As an example, one route that cuts through an otherwise intact core habitat area could have a much larger cumulative impact than one that cuts through a areas that is already so fragmented by routes that the incremental impact is insignificant. After the Tree© process is complete, the process should include a repeat of the spatial analyses to compare each alternative route network and compare cumulative impacts.

The BLM is required to comply with NEPA assess the direct, indirect and cumulative impacts of that action. An assessment of cumulative impacts must address the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions and can result from individually minor but collectively significant actions taking place over a period of time. 40 C.F.R. § 1508.7.

3. Tree© should include questions regarding legal requirements so as to create appropriate “sideboards” for alternatives: The sequence of questions and limited content of the questions in the Tree© imply that the information gained from answering each question is of equal importance. However, the BLM is required under certain laws to prioritize protection of certain resources over other uses, such as motorized access. By not making the relevant inquiries or clarifying the legal limitations on the standards for making determinations on routes, the Tree© leads to the generation of alternatives that goes

beyond legally-mandated sideboards and cannot be accepted, instead of a true range of acceptable alternatives.

- a. The Executive Orders (Executive Order No. 11644 (1972) (s amended by Executive Order No. 11989 (1977)) and the BLM’s implementing regulations (43 C.F.R. § 8342.1) require that motorized routes can only be located in a manner that minimizes impacts to soils, water, wildlife, and other recreational users. The Tree© does not include criteria that acknowledge the importance of the overriding requirements outlined in the Executive Orders. As a result, the Tree© must include inquiries that will, when presenting the information collected, also specify that any routes designated to be opened or to remain open are consistent with the clear language and intent articulated in the Executive Orders and regulations.
 - b. National Monuments are established through presidential proclamations, which identify the unique values that are to be protected in managing the Monument, such as cultural resources or remote character, also referred to as “Monument objects.” Similarly, National Conservation Areas (NCAs) are established through legislation that sets out priorities and purposes for their management. When the Tree© is used in a National Monument or National Conservation area, it should include inquiries to identify impacts to the Monument objects or NCA priorities and include criteria to ensure that consideration of routes is conducted in the context of the overriding requirement to ensure protection of these legally established values.
 - c. The BLM is also required by law to prioritize particular activities, such as protection of endangered species and archaeological and historic resources. In a similar fashion as described above, the Tree© must include explicit inquiries regarding the BLM’s obligations under relevant Acts of Congress (such as the Endangered Species Act, the Historic Sites Act, National Historic Preservation Act, Clean Air Act, and Clean Water Act) and specify that evaluations of potential route designations must comply with these requirements.
4. Tree© should include description/evaluation of mitigation measures: Although the Tree© provides for an option to choose “mitigate,” there should also be a record made of what form of mitigation was selected for the route segment. If the agencies propose mitigation strategies to alleviate potential impacts, these mitigation strategies must be clearly articulated each time. This information is necessary if the agency is to accurately analyze impacts. It also makes sense from a practical point of view – there should be a record of what mitigation actions are needed that can funnel into later implementation plans. The Tree© should include a requirement to actually identify mitigation measures and discuss how those measures will be effective as a uniform part of gathering data and identifying options.

In addition, elsewhere in Arizona, BLM has indicated that it intends to “mitigate by adaptive management monitoring of status/integrity of identified sensitive resources or special status species and/or cultural resources as their condition might relate to intensity and type of public use.” Monitoring is not an appropriate form of mitigation, because monitoring for expected damage does not actually reduce or alleviate any impacts.

Unless the agency proposes a valid form of mitigation each time the mitigation option is selected on the Tree©, this is not an acceptable approach and does not comply with NEPA standards for mitigation. NEPA requires that BLM discuss mitigation measures in an EIS. 40 C.F.R. §§ 1502.14, 1502.16. Also, under NEPA, BLM's Finding of No Significant Impact ("FONSI") is lawful only if "BLM has made a convincing case that no significant impact will result therefrom or that any such impact will be reduced to insignificance by the adoption of appropriate mitigation measures." Defenders of Wildlife, 152 IBLA 1, 6 (2000) (citations omitted. In general, in order to show that mitigation will reduce environmental impacts to insignificant, BLM must discuss the mitigation measures "in sufficient detail to ensure that environmental consequences have been fairly evaluated..." Communities, Inc. v. Busey, 956 F.2d 619, 626 (6th Cir. 1992). Simply identifying mitigation measures, without analyzing the effectiveness of the measures violates NEPA. Agencies must "analyze the mitigation measures in detail [and] explain how effective the measures would be . . . A mere listing of mitigation measures is insufficient to qualify as the reasoned discussion required by NEPA." Northwest Indian Cemetery Protective Association v. Peterson, 764 F.2d 581, 588 (9th Cir. 1985), rev'd on other grounds 485 U.S. 439 (1988). NEPA also directs that the "possibility of mitigation" should not be relied upon as a means to avoid further environmental analysis. *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*; Davis v. Mineta, 302 F.3d at 1125.

5. Tree© should include data sources, identification of data gaps and the need for additional data gathering: There are many instances where data do not exist on the presence and/or status of sensitive resources. Without an adequate inventory or understanding of the sensitive resources in the planning area, it is nearly impossible to adequately answer yes/no to the question about whether sensitive resources are affected. Without simple baseline information, it will be difficult to understand the extent to which the route in question will affect sensitive resources over the life of the plan. The Tree© process also does not contain any information about data sources or scientific literature that was consulted to evaluate resource impacts. Therefore, we recommend that the Tree© eliminate the yes/no question, and instead summarize what is know about possible impacts, and identify data gaps and the need for additional data gathering. This will help the agency meet its legal obligations to adequately evaluate impacts. It also makes sense from a practical point of view because it will create a record of critical information needs that can be addressed elsewhere in the process or in implementation.

NEPA requires that the BLM's "hard look" at environmental consequences be based on "accurate scientific information" of "high quality." 40 C.F.R. § 1500.1(b). In this context, NEPA "ensures that the agency, in reaching its decision, will have available and will carefully consider, detailed information concerning significant environmental impacts." Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 349 (1989). Further, where there is "incomplete or unavailable information" to thoroughly analyze potentially significant environmental impacts in an EIS, NEPA requires that the BLM make clear that the information is lacking and either commit to obtaining the information

or an explanation of how a decision can be justified without it. 40 C.F.R. § 1502.22. Under the Data Quality Act, the BLM is required to use information that is of high quality, objective, useful, and verifiable by others. BLM's internal guidance also recognizes the importance of both accumulating and properly analyzing data. (see, e.g., BLM's Land Use Planning Handbook (H-1601-1)). Without sufficient information, BLM cannot make a reasoned decision.

While we recognize that it is not always possible to gather the best possible data, the BLM must acknowledge that there is often not enough information to definitely answer a yes/no question (another reason to eliminate this part of the Tree's © current structure) or to even describe the impacts under consideration. In order to address this reality, the Tree© should provide an option for answering "unknown" or "more data needed" and then require a description of the data gaps, so that the agency can make a determination as to how best to proceed.

IV. WILDERNESS CHARACTERISTICS

A. Identification and protection of wilderness characteristics

At the outset, we want to emphasize our belief that BLM's abandonment of its authority to designate any additional Wilderness Study Areas (WSAs) is invalid and will ultimately be overturned in pending litigation¹; and, therefore, does not prevent BLM from designating new WSAs.²

However, even the agency has contended that, regardless of its ability to designate new WSAs, BLM retains the ability to value wilderness character and protect it. Instruction Memoranda (IMs) Nos. 2003-274 and 2003-275, which formalize BLM's policies concerning wilderness study and consideration of wilderness characteristics, contemplate that BLM can continue to inventory for and protect land "with wilderness characteristics," and also specifically reference ACEC designation as one options for doing so. In this guidance, wilderness characteristics are identified as naturalness, providing opportunities for solitude or providing opportunities for primitive or unconfined recreation. The IMs further provide for management that emphasizes "the protection of some or all of the wilderness characteristics as a priority," even if this means prioritizing wilderness over other multiple uses. (emphasis added). This guidance does not limit its application to lands suitable for designation of WSAs. For instance, the guidance does not

¹ The recent withdrawal of court approval of the consent decree and the subsequent withdrawal by the State of Utah and the Department of Interior of the settlement as a consent decree at all, casts serious doubt upon BLM's current policy not to consider designating new WSAs.

² Because the State of Utah and the Department of Interior have withdrawn their settlement and do not intend to seek a new consent decree, there is currently no binding consent decree and the BLM has not even issued any updated guidance seeking to continue applying this misguided, and illegal, policy. Consequently, IM Nos. 2003-274 and 2003-275, which are explicitly based on an April 2003 settlement that no longer exists, are arguably invalid and do not apply to restrict BLM from designating new WSAs.

include a requirement for the lands at issue to generally comprise 5000-acre parcels or a requirement that the lands have all of the potential wilderness characteristics in order to merit protection. Further, the guidance specifically contemplates management to protect “some or all” of the wilderness characteristics, so, for instance, the guidance would support managing an area to protect its naturalness as a priority over other multiple uses.

Commitment to using this national guidance was reiterated in a February 12, 2004, letter to William Meadows, President of The Wilderness Society, from Assistant Secretaries of the Interior Rebecca Watson and Lynn Scarlett (copy attached for your reference), stating: “Wilderness characteristics can be protected by imposing a variety of designations and management prescriptions that are available to BLM as part of its resource management planning process.” The guidance issued by BLM’s Arizona State Office serves to elaborate upon this guidance by providing for identification of lands with wilderness characteristics and development of management prescriptions to protect and enhance these values (*See* IM No. AZ-2005-007). We are pleased to see that the Draft RMP includes land use allocations for lands with wilderness characteristics in the preferred alternative, however we are concerned that none of the other alternatives contain this allocation.

The general process is consistent with FLPMA’s direction that BLM inventory for the many values of the public lands and consider ways to protect them (i.e., not all uses are appropriate in all places) in the RMP. 43 U.S.C. §§ 1711, 1712. In addition, it is consistent with the applicable BLM guidance in providing for inventory and protection of wilderness characteristics, and considering the lands included in the wilderness proposals submitted by the Arizona Wilderness Coalition (consideration of citizen wilderness proposals is specifically mentioned in the national guidance, as well). We also appreciate the consideration of all of the following as wilderness characteristics: Naturalness, Solitude, and Primitive and unconfined recreation.

However, the Draft RMP does not provide adequate detail on how the BLM applied the wilderness characteristics discussion in section 3.9. Draft RMP at 408. It is confusing to try to determine which citizen-proposed areas were validated by BLM in their process of following Instruction Memorandum Nos. 2003-274, 2003-275, and AZ-2005-007. It does appear that all of the areas in the Bradshaw-Harquahala region proposed by citizens were at a minimum displayed on Map 3-12, but no areas were displayed for the Agua Fria National Monument. BLM staff have indicated that this was an oversight and will be corrected in the Final RMP/EIS. Section 3.9 also makes no mention of the AWC proposal for the Agua Fria NM submitted during the scoping process and identified on the BLM website as scoping comments received. In addition, the BLM states that the Round Mountain unit was found to possess wilderness characteristics, but did not receive any protection in the preferred alternative and no rationale was provided for dropping this unit. The same is true for the Harquahala Mountains units.

Recommendation: The BLM should add more explanation of how the process described in Section 3.9 was applied. BLM should also describe the results of this process for specific areas, including all of the AWC-proposed areas. In particular, in accordance with the guidance cited above, an area should be considered as possessing wilderness character if it includes one, two, or all three of the criteria of naturalness, solitude, and primitive and unconfined recreation.

B. Specific Recommendations for Amending the Preferred Alternative to Include All Areas with Wilderness Characteristics

The BLM should reassess its decision to not protect all of the lands in the planning areas identified as possessing wilderness character. Wilderness is a disappearing resource and the agencies should strive to preserve all that remains on public lands. A reassessment and protection of more lands with wilderness characteristics would also be consistent with current law and guidance, as discussed above. Further, preserving the wilderness character in the Monument may be the most effective way to preserve the monument objects mentioned in the proclamation.

Please note that this proposal is also being submitted in digital format (GIS data files) under separate cover to the BLM from Jason Williams of the Arizona Wilderness Coalition.

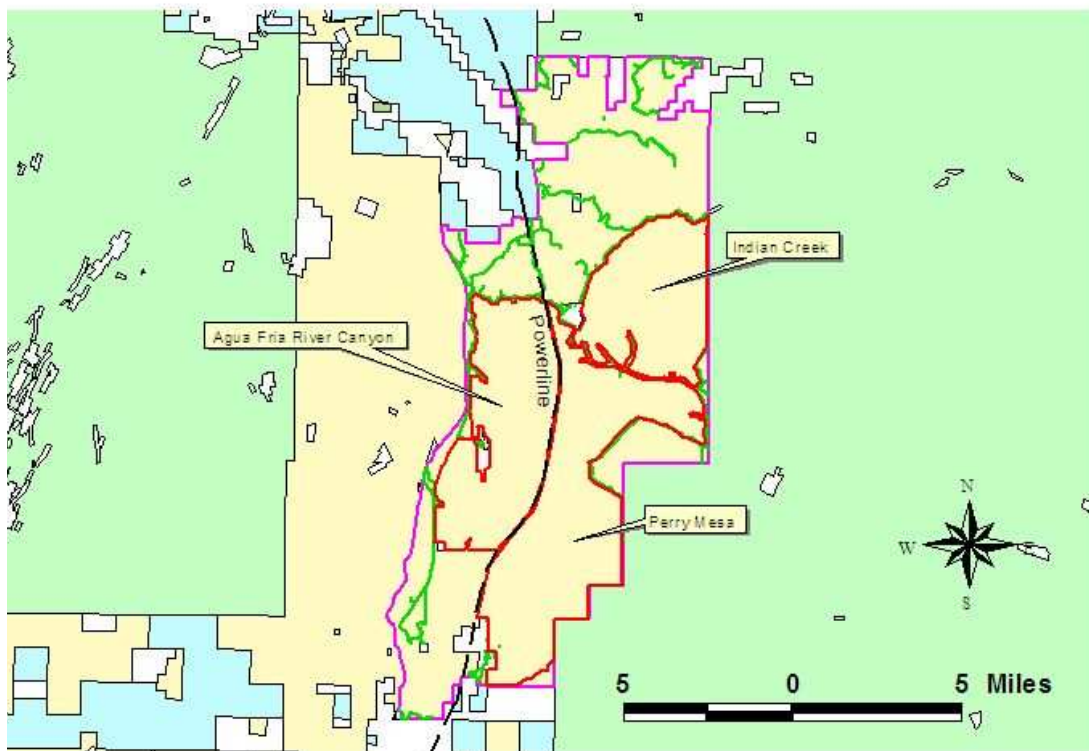
Recommendation:

We recommend that you identify the following acreage and areas as wilderness character:

For Agua Fria National Monument:

1. Agua Fria River Canyon: 16,775 acres
2. Perry Mesa: 11,601 acres
3. Indian Creek: 9,195 acres

Proposed Areas for Management of Wilderness Characteristics in Agua Fria NM



For a description of our recommended boundaries for these areas, as well as a documentation of the presence of wilderness character, we incorporate by reference the original AWC proposal submitted to BLM on July 9, 2002. This document describes the Agua Fria River Canyon Unit and the Perry Mesa unit.

In addition, the following describes the wilderness characteristics for the 9,195-acre recommended Indian Creek Unit:

Viewing the mesa with the eyes of a wilderness advocate, only minutes were needed for me to realize that this parcel possesses the key features of primitiveness, sense of solitude, and untrammled nature needed to qualify for wilderness protection. Although the grass-covered mesa offers wide-open spaces and long vistas, the varied elevations and scattered juniper growth can easily conceal persons in close proximity. In some reaches it is a challenge to note any evidence of roads, power lines or other alterations even knowing roughly where to seek them. Some potent topography is packed into this small corner of the Monument and descending the gulches and deep canyons leaves one in total solitude fully engulfed by a wild land.

Untrammelled lands are a rare and vanishing resource intrinsically deserving protection, but the Indian Creek parcel offers us still more. Like Perry Mesa to the south, relics and ruins of a vanished prehistoric civilization are abundant in this area. Although my colleagues and I have not assessed the entire parcel to date, it is apparent this small section harbors significant archaeological resources.

With the AFNM land and cultural resources already afforded substantial protection, is proposing that the roughly 7% of the Monument holdings encompassed in the Indian Creek area be protected for their wilderness characteristics worth the effort? We answer yes. The AFNM will soon be surrounded by a burgeoning population with perhaps less connection to the natural world, traditional uses of the land, and Arizona prehistory than ever before. These impending regional changes will inevitably spawn new management challenges and increased demands to exploit Monument resources. Protecting the Indian Creek parcel for its wilderness characteristics would ensure future citizens have the opportunity to experience an active encounter with their cultural history in its full, natural context. Granting to our increasingly urbanized and digitized future descendants a chance to experience a bit of the real past may be the most far-sighted action we will undertake today.

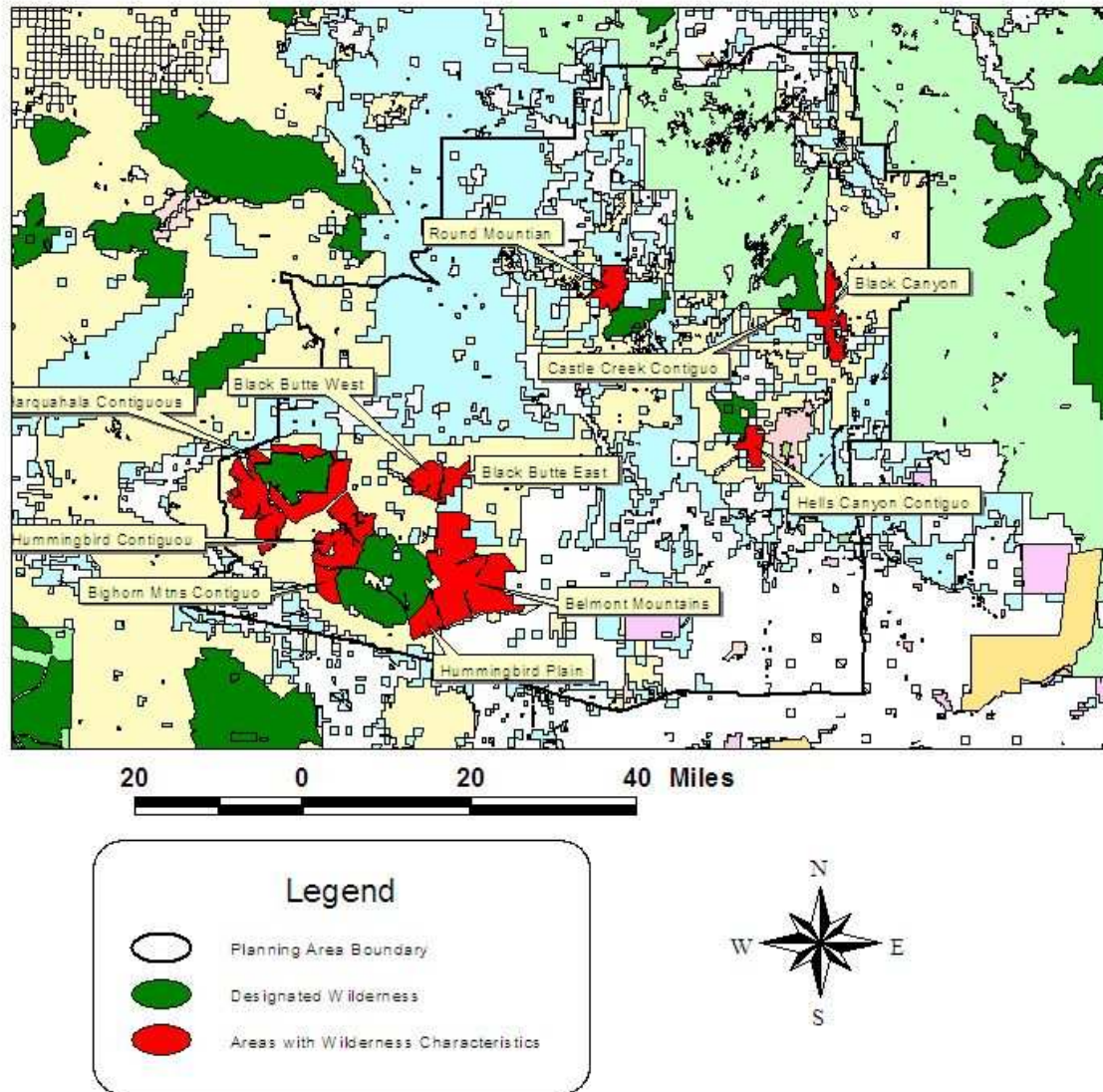
Although the Indian Creek parcel is deceptively small and in close proximity to a major urban area, it has wilderness qualities, encompasses significant natural and cultural resources and by virtue of location has an enormous future potential. As citizens participate in land use planning efforts and develop wilderness proposals, perhaps the Indian Creek experience will remind us to stay flexible and alert when new opportunities emerge to save the best of the rest.

We recommend that you identify the following acreage and areas as wilderness character:

For the Bradshaw-Harquahala Planning Area:

1. Bighorn Mountains Contiguous: 6,437 Acres
2. Hells Canyon Contiguous: 6,357
3. Harquahala Contiguous (Two Units): 68,062
4. Round Mountain: 10,673
5. Castle Creek Contiguous: 333
6. Black Canyon: 13,547
7. Black Butte East: 5,960
8. Black Butte West: 8,872
9. Hummingbird Springs Contiguous: 23,639
10. Hummingbird Plain: 7,969
11. Belmont Mountains: 55,356

Proposed Areas for Management of Wilderness Characteristics in the Bradshaw-Harquahala Planning Area



BLM should protect the full 207,205 acres of areas with wilderness character in the preferred alternative for the Bradshaw-Harquahala planning region. For a description of our recommended boundaries for these areas, as well as a documentation of the presence of wilderness character, we again incorporate by reference the original AWC proposal submitted to BLM on July 9, 2002.

The BLM has proposed other designations for these areas that have wilderness characteristics, which we also support. The other designations include: Areas of Critical Environmental Concern, Outstanding Natural Areas, and Wildlife Management Areas. These designations are excellent tools to focus management on specific resources and should be retained for Black Butte, Harquahala Mountains, and the greater Bighorn/Hummingbird Springs complex. These tools can be well-complemented with the allocation for wilderness characteristics because this protection achieves many of the desired outcomes for the other designations.

C. Management Common to All Alternatives Regarding Management of Wilderness Characteristics

In section (2.7.1.6) management common to all alternatives BLM explains how naturalness is defined and mentions that fences and other livestock facilities are part of assessing naturalness. However, none of the IMs cited above make any mention of assessing naturalness based on the presence or absence of range facilities. Since Congress and subsequent agency guidance regarding the 1964 Wilderness Act has extensively outlined the definition of, and prohibited and allowed uses within wilderness, it seems common sense that the BLM would identify and manage areas with wilderness characteristics in line with these guidelines. We do recognize that these places are not to be managed as designated wilderness. Therefore, the current Arizona guidance offers plenty of latitude to accomplish other managerial tasks and allow for non-conforming uses that would not otherwise be allowed in wilderness.

Recommendations: In the management common to all areas allocated for wilderness characteristics, we recommend that you place emphasis on enhancing wilderness characteristics by working to close/restore motorized routes in areas of wilderness characteristics, instead of creating management guidelines that make leaving routes open in these areas possible, such as those in 2.7.1.6. Also in section 2.7.1.6 the RMP states, “Motorized vehicle routes within lands allocated to maintain or enhance wilderness characteristics would be designated in the RMP and shown on maps”. The process of designating routes in the RMP in and around areas with wilderness characteristics was not made public as BLM has consistently told the public the route designation process would not occur inside the RMP. We feel this is inappropriate and all routes in the planning area should be considered simultaneously and no pre-decisions should be made in this RMP considering BLM did not make the public aware of this. This statement may be a typo in the document and if so please correct this in the final. Also please refer to February 17th, 2005 letter sent by AZ Wilderness Coalition, The Sierra Club Grand Canyon Chapter, and The Wilderness Society for further comments on the management of wilderness characteristics (attached for your easy reference).

In addition, we recommend that section 2.7.1.6. follow the BLM’s State Director guidance in recognizing that the solitude and primitive/unconfined recreation definition provided for wilderness characteristics indicates that these activities are non-motorized and non-mechanical, which would prohibit the use of mountain bikes. At the minimum,

BLM should create desired future conditions that do not develop mountain biking opportunities in areas of wilderness characteristics where they did not occur previously.

V. LANDS AND REALTY

In regards to utility corridors, we support the language in the preferred alternative that directs major utility systems through designated corridors, uses collocation when possible, and minimizes visual impacts. (2.7.1.2) Draft RMP at 211.

We strongly recommend that the BLM designate only a narrow utility corridor, and not allow any new Rights-of-Way (ROWs) in the Monument. ROWs and utility corridors will have a range of impacts similar to that described above for roads, such as habitat fragmentation, encroachment of invasive species, disturbance of soil, degradation of wilderness characteristics, and increased human disturbance. These impacts are unacceptable in a National Monument that is supposed to be managed for conservation above all.

However, since this is a rapidly growing area, there will be significant pressure on the BLM to grant rights-of-way to growing utilities. If new ROWs are proposed for the Monument, it should be only as a last resort because the alternative is to create a new corridor/ROW outside the Monument that would impact previously undisturbed area, such as wilderness-quality lands or critical wildlife habitat. This would require BLM to perform a landscape-scale cumulative impact analysis and make a decision considering landscape-level effects.

Recommendation: We recommend that the BLM evaluate all of the impacts described above, and compare them in a cumulative impact analysis to evaluate the best manner to have the least impact possible.

In addition, we have concerns about the large acreage of lands – 38,755 acres – identified for disposal in the Bradshaw Harquahala planning area (2.6.2.1.1) RMP at 168. In general, we support retaining public lands under federal management. We support and thank BLM for removing the 16,000+ acres of BLM land from the disposal list in the Dewey-Humboldt-Mayer area and developing management criteria in the preferred alternative.

Recommendation: We recommend the BLM apply the following criteria to identify lands which *are not* suitable for disposal:

- a. No wilderness quality lands should ever be disposed of.
- b. No ecologically sensitive or significant lands should be disposed of including lands with habitat for threatened or endangered species, water sources, critical wildlife habitat, and riparian or wetland areas.
- c. Lands containing high public values such as providing access to larger tracts of public lands, high visual resource management values, identified cultural values and sacred sites.
- d. Land disposals should not be considered for Counties that have sufficient private lands for community growth in the foreseeable future. Land disposal for economic

development purposes are generally not needed if the amount of public land in the county is less than 90%.

We emphasize that this is not an exhaustive list, and that there may be many other reasons to retain lands in federal ownership. Rather, these are merely minimal criteria for the lands that should not be considered for disposal.

We are also concerned about the impacts that a rest stop along I-17 could have on the National Monument. There have been proposals for such projects in the past, which would have had significant negative impacts by promoting additional use in the area that could impact sensitive Monument objects such as archaeological sites and pronghorn, as well as depleting critical local surface and groundwater resources.

Recommendation: The BLM should include a management decision that specifically prohibits rest stops or similar projects in the Monument along I-17.

VI. WILD AND SCENIC RIVERS

The BLM is obligated to conduct a Wild and Scenic eligibility study for all rivers as part of their planning actions, per the Wild and Scenic Rivers Act (16 U.S.C. 1276(d)(1) requires agencies to take rivers and streams that qualify for inclusion in the system into account when planning for use and development of the public lands) and BLM Manual 8351. To be eligible for inclusion in the National Wild and Scenic Rivers System (NWSRS), a river or segment thereof must be “free-flowing” and it or its related land area must possess at least one outstandingly remarkable value (ORV). 16 U.S.C. § 1273 (b); see also Center for Biological Diversity (CBD) v. Veneman, 349 F. 3d 1108, 1109 (9th Cir. 2005) (defining eligibility). These ORVs are the “scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values” listed in section 1 of the WSRA. 16 U.S.C. § 1271.

Under section 5 (d)(1), the “Secretary of the Interior and the Secretary of the Agriculture shall make specific studies and investigations to determine which additional wild, scenic and recreational river areas within the United States” qualify for inclusion in the NWSRS. 16 U.S.C. § 1276 (d)(1). This section “requires the Secretaries of Agriculture and the Interior to conduct ‘specific studies and investigations’ to discover rivers eligible for inclusion in the [NWSRS].” CBD, 394 F. 3d at 1110; see also Washington County, Utah, et. al., 147 IBLA 373, 377 (March 4, 1999).

The BLM Manual 8351 requires that the BLM make eligibility determinations of identified rivers during the planning process. According to Instruction Memorandum No. 2004-196, dated July 21, 2004, “When the BLM considers a proposal that could constitute a major Federal action that significantly affects the quality of the human environment, the Council on Environmental Quality regulations requires NEPA compliance before the BLM can act on the proposal (40 CFR 1506.1).”

In 1994, the BLM completed a Legislative Environmental Impact Statement (LEIS) reviewing multiple rivers in Arizona for Wild and Scenic eligibility. The LEIS found that the Agua Fria

River in the planning area is Wild and Scenic (W&S) eligible. The Draft RMP sufficiently acknowledges this and makes management recommendations in line with their status.

However, there are no references to the tributaries of the Agua Fria ever being evaluated for W&S eligibility in either the LEIS or as part of this planning document. The BLM must conduct an eligibility study on these tributaries to be fully compliant with the BLM's planning directives, NEPA, and the Wild and Scenic Rivers Act. The rivers must still be evaluated even if the flows are intermittent, according to the Wild and Scenic River Council.

Recommendation: BLM must conduct a Wild and Scenic eligibility study on the Agua Fria tributaries and include this study in the Final RMP.

VII. WILDLIFE

The Draft RMP describes a number of actions that impact special status species in the planning area in Chapter 4, including roads, livestock grazing, habitat fragmentation and disturbance, vegetation treatments, and recreation. The fact that these actions would occur under all alternatives requires a rigorous environmental analysis of effects to special status species in the EIS. The draft RMP/EIS should provide detailed information about habitat requirements, baseline information on current habitat conditions, and the desired future conditions for all special status species. The effects analysis in the DEIS is inadequate, providing in many cases only generalities and assumptions, rather than clear directions and baseline data.

Habitat requirements: *Chapter 3: Affected Environment* should include detailed descriptions of the habitat requirements for each species, delineate this habitat in the planning areas, and discuss current population status and trends, especially as the habitat conditions and population trends may be affected by actions in the planning area. While some general information is provided for some species, it is completely lacking for others.

For example, the only information provided for game species is a list of whether the species is present, including for species that are also Monument Objects (e.g. pronghorn, javelina, mule deer, and mountain lions) (3.5.3) RMP at 397. There is no information provided about habitat or species trends, except for a map of bighorn sheep habitat (Map 3-10) and a general statement that "recent drought conditions have generally affected large game population trends." (3.5.3) RMP at 398. There is little to no discussion of current conditions for special status species, except general statements about whether a species is likely to be present, and what general threats it possess (3.5.5) RMP at 398 to 402.

Significantly, there is no information presented at all for several species that are monument objects, including the lowland leopard frog, the Mexican garter snake, and the common black hawk. As mentioned previously, in order to comply with the Monument Proclamation, the BLM must be able to demonstrate that it is prioritizing protection of these species. When there is no information presented on the status or trends of these species, it is impossible to evaluate the potential impacts of management activities on their future population status, and therefore the impact assessment is inherently flawed and inadequate.

Desired future conditions: While we support the statements listed under Desired Future Conditions for special status species [(2.7.1.4) RMP at 214 to 220], they do not constitute an analysis or a plan. Instead, they are broad statements, mostly communicating the agencies' intention to comply with the Endangered Species Act and other regulations pertaining to special status species management. The EIS should describe desired future conditions specific to each special status species' habitat requirements, and actions for achieving these. In addition, the same comments apply as above. The BLM should include desired future conditions for all Monument Objects.

Conclusion: While the draft RMP does contain numerous lists of species, and references applicable laws, plans, and guidance, this does not constitute an analysis, even at the programmatic level. The EIS should provide a clear management vision that is consistent with the requirements of the Endangered Species Act to protect habitat and provide for the recovery of all special status species and Monument Objects. This vision must include an analysis of habitat requirements, baseline information regarding current conditions, and desired future conditions for each species. The BLM and NPS should seek to go beyond maintenance of the status quo with a plan that will ensure the health, recovery, increase, and long-term survival of the plant and wildlife populations that inhabit the landscape currently and those that may in the future if conditions are right.

Recommendation: BLM must present data on the status, trends, and potential future trends of all wildlife species of concern in Chapter 3 and 4. Wildlife species of concern should include not just threatened and endangered species and special concern species, but also all Monument Objects. In particular, there is currently no information of several Monument Objects, including the lowland leopard frog, the Mexican garter snake, and the common black hawk. The Final RMP must include a thorough analysis of the current and projected status of species, and provide clear and consistent management goals to help species recover. BLM must provide this information if it is to complete its requirements under NEPA to provide an analysis of direct, indirect, and cumulative impacts.

VIII. RECREATION RESOURCES

As has been previously described, BLM's priority for management is preservation of Monument Objects. Also as previously described, one of the most significant threats to these resources is high-intensity recreation. Therefore, we recommend that the BLM emphasize low-impact recreation opportunities and manage as much of the Monument as possible for backcountry use. In addition, all recreation resources should be designed to protect Monument objects, reduce the footprint and visual impact of development, use low and alternative energy sources, and use minimal water.

Recommendation: We support the preferred alternative on recreational shooting in the Monument. (2.6.1.5) Draft RMP at 161. Recreational shooting can pose a direct threat to Monument objects, impact other visitors, and is generally inappropriate in a National

Monument. We recommend the BLM retain this prohibition on recreational target shooting throughout the Monument, which should also include specific language to ban paintball shooting.

Recommendation: We support the Frontcountry Recreation Management Zone (RMZ) acreage described in Alternative D, with a Back Country RMZ of 68,380 acres, Passage RMZ of 990 acres, and Front Country RMZ of 1,530 acres. 2.5.1.5. RMP at 124.

Recommendation: We support the preferred alternative for no developed campgrounds within the Monument. 2.6.1.5. RMP at 161.

Recommendation: We support the preferred alternative for SRPs and concessions within the Monument, however we recommend the BLM expand the limitations on SRPs. They should be granted only when the activity will pose no potential harm to Monument objects, and therefore should be carefully evaluated for any negative impact on cultural sites, wildlife, soil, invasive species, rare plants, water quality, and wilderness character (including opportunities for solitude and primitive and unconfined recreation). 2.6.1.5. RMP at 161. We strongly also support the Preferred Alternative's ban on competitive motorized or mechanized races in the Monument. 2.6.1.5. RMP at 162.

Recommendation: We recommend that the BLM include specific management language that would limit facilities such as toilets, parking, and staging areas – all of which will concentrate visitors – in sensitive areas such as pronghorn fawning habitat and movement corridors and the Agua Fria River and its tributaries. Therefore and in addition, the BLM should not designate the High Use Special Cultural Resource Management Areas (SCRMA) identified on Map 2-73 (2.6.1.4) RMP at 159. In particular, designation of the Rollie Site (AZ N:16:231(ASM)) near Sunset Point on Black Mesa as a High Use SCRMA could block the movement of pronghorn onto the southern portion of Black Mesa. (2.6.1.4.) RMP at 159.

Recommendation: We cannot emphasize enough the importance of public education and appropriate interpretation in the Monument. BLM should provide relevant materials for interpreted cultural sites so that visitors can learn and understand the significance of the irreplaceable resources at Agua Fria. BLM should also provide appropriate signage informing visitors about the land's Monument status and the applicable rules. When properly managed, the Monument can provide a rich and educational experience for visitors that will also protect the Monument for future generations.

IX. CONCLUSION

The BLM manages some of the most remote, beautiful, and biologically and geologically diverse lands in the country, and the American public is counting on you to protect these values for the future. This plan will set the course for the next twenty years of management of one of our newest National Monuments, and we appreciate the opportunity to participate in the planning process for these special public lands. We would welcome the opportunity to meet with you to

discuss these comments in the near future. Please feel free to contact either of us if you have any questions or need additional information.

Sincerely,

Jill Ozarski
The Wilderness Society
1660 Wynkoop Street, Suite 850
Denver, CO 80202
(303) 650-5818 ext. 111
jill_ozarski@tw.s.org

Jason Williams
Arizona Wilderness Coalition
P.O. Box 2741
Prescott, AZ 86302
(928) 717-6076
jwilliams@azwild.org

LIST OF ATTACHMENTS

1. *Protecting Northern Arizona's National Monuments: The Challenges of Transportation Management*. 2004. Thomson, J.L., D.A. Hartley, J.N. Ozarski, K. Murray, and N.W. Culver. The Wilderness Society, Washington, DC. 39 pp
2. February 12, 2004, letter to William Meadows, President of The Wilderness Society, from Assistant Secretaries of the Interior Rebecca Watson and Lynn Scarlett.
3. February 17, 2005, letter to Teri Raml, BLM Phoenix Field Office Manager, from the Arizona Wilderness Coalition, Sierra Club, and the Wilderness Society.

REFERENCES

- Altschul, J.H. and H.C. Fairley. 1989. *Man, Models and Management: An Overview of the Archaeology of the Arizona Strip and the Management of Its Cultural Resources*. USDA Forest Service and U.S. Bureau of Land Management.
- Berry, K.H. 1990. The status of the desert tortoise in California in 1989. Bureau of Land Management, Riverside California, as amended to include 1990, 1991, and 1992 data sets.
- Berry, K.H. 1992. Relationships between tortoise population declines, levels of human use and impacts to habitats. Page 110 in: *Proceedings of the Symposium of the Desert Tortoise Council 1992*.
- Berry, K.H., and F.B. Turner. 1984. Notes on the behavior and habitat preferences of juvenile desert tortoises (*Gopherus agassizi*). Pages 111-130 in: *Proceedings of the Symposium of the Desert Tortoise Council 1984*.
- Berry, K.H., T. Shields, A.P. Woodman, T. Campbell, J. Robertson, K. Bohuski, and A. Karl. 1986. Changes in desert tortoise populations at the Desert Tortoise Research Natural Area

- between 1979 and 1985. Pages 100-123 in: *Proceedings of the Symposium of the Desert Tortoise Council 1986*.
- Boarman, W.I. 1992. Effectiveness of Fences and Culverts for Protecting Desert Tortoises along California State Highway 58. Report to California Energy Commission Contract No. 70-91-005, Phase 4, Task 3-3.
- Boarman, W.I. 1997. Predation on turtles and tortoises by a “subsidized predator.” Pages 103-104 in *Proceedings: Conservation, Restoration, and Management of Tortoises and Turtles – An International Conference*, New York Turtle and Tortoise Society, New York, NY.
- Boarman, W.I., M. Sazaki, and W.B. Jennings. 1997. The Effects of Roads, Barrier Fences, and Culverts on Desert Tortoise Populations in California, USA. Pages 54-58 in *Proceedings: Conservation, Restoration, and Management of Tortoises and Turtles – An International Conference*, New York Turtle and Tortoise Society, New York, NY.
- Boarman, W.I. 2002a. Desert Tortoise (*Gopherus agassizii*). In Boarman, W.I., and K. Beaman, eds. *The Sensitive Plant and Animal Species of the Western Mojave Desert*. U.S. Geological Survey, Western Ecological Research Center, Sacramento, CA.
- Boarman, W.I. 2002b. Threats to Desert Tortoise populations: A Critical Review of the Literature. U.S. Geological Survey, Western Ecological Research Center, Sacramento, CA. August 9, 2002.
- Boarman, W.I., and M. Sazaki. 1996. Highway mortality in desert tortoises and small vertebrates: success of barrier fences and culverts. Pages 169-173 in Evink, G., D. Zeigler, P. Garrett, and J. Berry, eds. *Transportation and Wildlife: Reducing Wildlife Mortality and Improving Wildlife Passageways Across Transportation Corridors*. U.S. Department of Transportation, Federal Highway Administration, Washington, DC.
- Bury, R.B., and R.A. Luckernach. 2002. Comparison of desert tortoise (*Gopherus agassizii*) populations in an unused and off-road vehicle area in the Mojave Desert. *Chelonian Conservation and Biology* 4(2): 457-463.
- Canfield, J.E., L.J. Lyon, J.M. Hillis, and M.J. Thompson. 1999. Ungulates. Pages 6.1-6.25 in Joslin, G., and H. Youmans, coords. *Effects of Recreation on Rocky Mountain wildlife: A Review for Montana*. Committee on Effects of Recreation on Wildlife, Montana Chapter of The Wildlife Society, MT.
- Crooks, K. 2002. Relative sensitivities of mammalian carnivores to habitat fragmentation. *Conservation Biology* 16(2): 488-502.
- Dickson, B.G., and P. Beier. 2002. Home-range and habitat selection by adult cougars in southern California. *Journal of Wildlife Management* 66(4): 1235-1245.
- Dickson, B.G., J.S. Jenness, and P. Beier. 2004. Influence of vegetation, topography, and roads on cougar movement in southern California. *Journal of Wildlife Management* (In review).
- Fox, R.A. 1989. Mule Deer (*Odocoileus hemionus*) Home Range and Habitat Use in an Energy-Impacted Area of the North Dakota Badlands. Masters Thesis, University of North Dakota, Grand Forks, ND.
- Gaines, W., P. Singleton, and R. Ross. 2003. *Assessing the Cumulative Effects of Linear Recreation Routes on Wildlife Habitats on the Okanogan and Wenatchee National Forests*.

- General Technical Report PNW-GTR-586. U.S. Department of Agriculture, U.S. Forest Service, Pacific Northwest Research Station, Portland, OR.
- Gucinski, H., J.J. Furniss, R.R. Ziemer, and M.H. Brookes. 2001. *Forest Roads: A Synthesis of Scientific Information*. General Technical Report PNW-GTR-509. U.S. Department of Agriculture, U.S. Forest Service, Pacific Northwest Research Station, Portland, OR.
- Hartley, D., J. Thomson, P. Morton, and E. Schlenker-Goodrich. 2003. *Ecological Effects of a Transportation Network on Wildlife: A Spatial Analysis of the Upper Missouri Breaks National Monument*. The Wilderness Society, Washington, DC.
- Huffman, Jim. 1993. *Between River and Rim: A Comparative View of Subsistence Systems in Grand Canyon National Park, Arizona*. Masters Thesis, Northern Arizona University. Copy on file, Grand Canyon National Park Science Center.
- [IORT] Institute for Outdoor Recreation and Tourism, Department of Forest Resources, Utah State University. January 2002. *Off Highway Vehicle Uses and Owner Preferences in Utah (Revised)*, Prepared for Utah Department of Natural Resources, Division of Parks and Recreation, Logan, UT, Professional Report IORT PR2001-2.
- Jorgensen, P. 1974. Vehicle use at a desert bighorn watering area. *Transactions of the Desert Bighorn Council* 18: 18-24.
- LaRue, E., Jr. 1993. Distribution of desert tortoise sign adjacent to Highway 395, San Bernadino County, California. Pages 190-204 in: *Proceedings of the Symposium of the Desert Tortoise Council 1992*.
- Lutz, D.W., B.F. Wakeling, L.H. Carpenter, D. Stroud, M. Cox, D. McWhirter, S. Rosenstock, L.C. Bender, and A.F. Reeve. 2003. Impacts and changes to mule deer habitat. Pages 13-61 in: de Vos, J.C. Jr., M.R. Conover, and N.E. Headrick, Eds. *Mule Deer Conservation: Issues and Management Strategies*. Jack H. Berryman Institute Press, Utah State University, Logan, UT.
- Monaghan & Associates. November 2001. Status and Summary Report, OHV Responsible Rider Campaign, Prepared for the Colorado Coalition for Responsible OHV Riding, Denver, CO.
- Murphy, K.M., P.I. Ross, and M.G. Hornocker. 1999. The ecology of anthropogenic influences on cougars. Pages 77-101 in Clark, T.W., A.P. Curlee, S.C. Minta, and P.M. Kareiva, eds. *Carnivores in Ecosystems*. Yale University Press, New Haven, CT.
- New Mexico Department of Game and Fish. 2005. *Habitat Fragmentation and the Effects of Roads on Wildlife and Habitats*. Available at: http://www.wildlife.state.nm.us/conservation/habitat_handbook/EffectsofRoads.htm.
- Nicholson, L. 1978. The effects of roads on tortoise populations. Pages 127-129 in: *Proceedings of the Symposium of the Desert Tortoise Council 1978*.
- Ockenfels, R.A., A. Alexander, C.L. Dorothy Ticer, and W.K. Carrel. 1994. Home range movement patterns and habitat selection of pronghorn in central Arizona. Technical Report 13. Arizona Game and Fish Department, Phoenix, AZ.
- Papouchis, C.M., F.J. Singer, and W.B. Sloan. 2001. Responses of desert bighorn sheep to increased human recreation. *Journal of Wildlife Management* 65(3): 573-582.

- Rost, G.R., and J.A. Bailey. 1979. Distribution of mule deer and elk in relation to roads. *Journal of Wildlife Management* 43(3): 634-641.
- Rubin, E.S., W.M. Boyce, M.C. Jorgensen, S.G. Torres, C.L. Hayes, C.S. O'Brien, and D.A. Jessup. 1998. Distribution and abundance of bighorn sheep in the Peninsular Ranges, California. *Wildlife Society Bulletin* 26(3): 539-551
- Ruediger, B. 1998. Rare carnivores and highways – moving into the 21st century. Pages 10-16 in Evink, G.L., P. Garrett, D. Zeigler, and J. Berry, eds. Proceedings of the International Conference on Wildlife Ecology and Transportation. FL-ER-69-98. Florida Department of Transportation, Tallahassee, Florida.
- Sullivan Alan P., Patrick M. Uphus, Christopher I. Roos, and Philip B. Mink. 2002. Inadvertent Vandalism: the hidden challenge for heritage resource management. *Cultural Resources Management* 25(2): 42-45.
- Sweaner, L.L., K.A. Logan, and M.G. Hornocker. 2000. Cougar dispersal patterns, metapopulation dynamics, and conservation. *Conservation Biology* 14 (3): 798-808.
- Thomson, J.L., D.A. Hartley, J.N. Ozarski, K. Murray, and N.W. Culver. 2004. *Protecting Northern Arizona's National Monuments: The Challenges of Transportation Management*. The Wilderness Society, Washington, DC.
- Thomson, J.L., T.S. Schaub, N.W. Culver, and P.C. Aengst. 2005. *Wildlife at a Crossroads: Energy Development in Western Wyoming*. The Wilderness Society, Washington, DC.
- Trombulak, S.C., and C.A. Frissell. 2000. Review of ecological effects of roads on terrestrial and aquatic communities. *Conservation Biology* 14: 18-30.
- U.S. Fish and Wildlife Service. 1994. Desert Tortoise (Mohave Population) Recovery Plan. Portland, Oregon.
- Van Dyke, F.G., R.H. Brocke, H.G. Shaw, B.B. Ackerman, T.P. Hemker, and F.G. Lindzey. 1986. Reactions of mountain lions to logging and human activity. *Journal of Wildlife Management* 50 (1): 95-102.
- Van Dyke, F.G., R.H. Brocke, and H.G. Shaw. 1986. Use of road track counts as indices of mountain lion presence. *Journal of Wildlife Management* 50 (1): 102-109.
- Van Riper, C., and R. Ockenfels. 1998. The influence of transportation corridors on the movement of pronghorn antelope over a fragmented landscape in Northern Arizona. *International Conference on Wildlife Ecology and Transportation, 1998* pp. 241-245.
- Von Seckendorff Hoff, K. and R.W. Marlow. 2002. Impacts of vehicle road traffic on desert tortoise populations with consideration of conservation of tortoise habitat in southern Nevada. *Chelonian Conservation and Biology* 4(2): 449-456.
- Wyoming Game and Fish Department. 2004. *Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitat: A Strategy for Managing Energy Development Consistently with the FLPMA Principles of Multiple Use and Sustained Yield*. Available at <http://gf.state.wy.us/habitat/index.asp>.