



The Rewilding Institute

Richard A. Gerhart
Coronado National Forest
300 West Congress
Tucson, AZ 85701

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Via postal mail and e-mail: comments-southwestern-coronado@fs.fed.us

RE: Comments Regarding Environmental Assessment (EA) for Alisos, Oak Bar, and Santa Cruz Allotments

Dear Mr. Gerhart,

Thank you for providing our office with a copy of the EA for the Alisos, Oak Bar, and Santa Cruz Allotments. These comments are submitted on behalf of Forest Guardians, our 1,650 members, and the Rewilding Institute. All of us care about, and are affected by, the management of our National Forests.

Forest Guardians is a non-profit public interest organization dedicated to preserving the wild lands and wildlife of the American Southwest. Forest Guardians has a long history of interest and involvement in Forest Service activities with respect to grazing, riparian areas, water quality, and wildlife. The members and staff of Forest Guardians use and enjoy the public lands, waters, and natural resources within the Coronado National Forest for recreational, scientific, spiritual, educational, aesthetic, and other purposes. Forest Guardians and its members also participate in information gathering and dissemination, education and public outreach, commenting upon agency actions, and other activities relating to the Forest Service's management and administration of the public lands in Arizona.

The Rewilding Institute is a non-profit, conservation think tank dedicated to science-informed protection and restoration of biological diversity at landscape and continental scales in North America. A primary focus of The Rewilding Institute is the restoration and conservation of ecologically effective populations of top predators.

As we are sure you are aware, the effects of cattle grazing have long subjected our southwestern public lands to ecological disrepair. Recent scientific studies have indisputably shown that grazing in the arid areas of our country, such as those in Arizona, eradicates native flora and fauna and degrades water quality.¹ These devastating effects stem from the fact that cattle denude the landscape while trampling soils and destroying stream banks. The ubiquity of subsidized livestock ranching on our National Forests is quickly eradicating the unique treasure of biodiversity that once pervaded throughout the places in which we now live, work, and recreate.

Modern scientific thought on southwestern cattle ranching is rapidly altering public opinion toward this land use. Many concerned citizens, including those in our own membership, seek change for range management on our public lands. Simply put, we feel that livestock grazing on the Coronado National Forest is unsustainable and incompatible with the public interest. It is from this perspective that we now comment on the proposed action for the Alisos, Oak Bar, and Santa Cruz Allotments.

PROJECT DEFINITIONS AND LEGAL PARAMETERS

“The purpose of the proposed action is to authorize livestock grazing in a manner that maintains or improves project area resource conditions and achieves the objectives and desired conditions described in the Coronado National Forest Plan.”² In furtherance of this goal, the EA purports to analyze the environmental impacts of reauthorizing livestock grazing on the Alisos, Oak Bar, and Santa Cruz Allotments. Because continued grazing on this allotment specifically- and on our public lands in general- wreaks havoc on the environment, depletes public resources, and impairs recreational opportunities, any decision to reauthorize grazing at this time cannot be taken lightly. Indeed, the need for sound agency decision-making is reflected in the myriad federal rules and regulations that now govern your decision.

Not only must the EA for the Alisos, Oak Bar, and Santa Cruz Allotments meet the procedural requirements of the National Environmental Policy Act (NEPA), 42 U.S.C §§ 4321 *et seq.*, all range management decisions concerning these allotments must comply substantively with NEPA, the National Forest Management Act (NMFA), 16 U.S.C §§ 1600 *et seq.*, the Federal Land Policy and Management Act (FLPMA), 43 U.S.C. §§ 1751 *et seq.*, the Public Rangelands Improvement Act (PRIA), 43 U.S.C. §§ 1901 *et seq.*, the Endangered Species Act (ESA), 16 U.S.C. §§ 1531 *et seq.*, the Administrative Procedures Act (APA), 5 U.S.C. §§ 706 *et seq.*, the Clean Water Act (CWA), 33 U.S.C. §§ 1251 *et seq.*, the Multiple-Use, Sustained-Yield Act (MUSY), 16 U.S.C. §§ 528 *et seq.*, the National Forest Grazing Act (NFGA), 16 U.S.C. §§ 580c *et seq.*, the United States Forest Service (USFS) Federal Regulations for Grazing and Livestock Use on the National Forest System, 36 C.F.R. Part 222, and the Coronado National Forest Plan (CNFP).

¹ See e.g. Wuerthner, G and M Matteson (eds). 2002. *Welfare ranching: the subsidized destruction of the American west*. Island Press, Washington; see also TL Fleischner. 1994. *Ecological Costs of Livestock Grazing in Western North America*. *Conservation Biology* 8:3:629-644.

² EA for the Alisos, Oak Bar, and Santa Cruz Allotments, at 4.

In short, the USFS is compelled to manage our forests in the public interest by preserving their natural integrity and balancing competing uses. The EA prepared for the Alisos, Oak Bar, and Santa Cruz Allotments should have reflected the USFS's aforementioned charge by realistically analyzing the environmental and financial costs of continued grazing, along with the benefits of long-term rest. The EA, however, failed to take either of these factors fully into account. Instead, the preferred action on the Alisos, Oak Bar, and Santa Cruz Allotments inappropriately and unjustifiably reflects the USFS's overarching policy of favoring the preservation of an ambiguous "ranching culture" over all other potential uses. In doing so, the USFS turns a blind eye to the real costs of public lands ranching, and fails to disclose the tangible benefits that could be realized by allowing our National Forests to be put to the panoply of other uses, which are now unrealistic on the 69% of USFS land that is currently devoted to livestock grazing.³

These comments explore the inadequacies of the EA for the Alisos, Oak Bar, and Santa Cruz Allotments. We do this through a discussion of those issues that should have been addressed therein, and conclude that the USFS must now complete an environmental impact statement (EIS). This heightened level of environmental review is required to cure the deficiencies of the EA, and adequately address other significant issues that the USFS should consider before deciding whether to reauthorize livestock grazing on these allotments.

THE INADEQUACY OF THE EA FOR THE ALISOS, OAK BAR, AND SANTA CRUZ ALLOTMENTS

We feel that the EA for the reauthorization of grazing on the Alisos, Oak Bar, and Santa Cruz Allotments fails to meet the requirements of the Council on Environmental Quality (CEQ)⁴ as promulgated in accordance with NEPA. The sections that follow discuss the general role of an EA in the agency decision-making process, and point out why *this* EA provides an insufficient basis upon which the USFS can move forward without further environmental review.

Purpose and Function of an EA Generally

When, as here, an action is not categorically excluded from environmental review,⁵ the USFS may begin the NEPA process with the preparation of an EA.⁶ The purpose of an EA is to determine whether the federal action is significant enough to require an EIS, *i.e.*, whether the federal action will have a significant effect on human health or the environment.⁷ To facilitate such a determination, the EA must contain, *inter alia*, brief discussions of the need for the proposed action, alternatives to the proposal, and the

³ Wuerthner (2002).

⁴ The CEQ regulations are codified at 40 C.F.R. §§ 1500 *et seq.*

⁵ Categorical exclusions are rarely employed and only appropriate for non-impact decisions.

⁶ See 40 C.F.R. §§ 1501.3 and 1501.4(a)-(c).

⁷ 42 U.S.C. § 4332(2)(C).

environmental impacts of the proposal and the alternatives.⁸ Additionally, an EA must consider the cumulative impacts of the proposed action.⁹

An EA is meant to be a concise public document, which serves to provide sufficient evidence and analysis for determining whether to prepare an EIS or, on the other hand, make a finding of no significant impact (FONSI).¹⁰ Although not as thorough or as detailed as an EIS, an EA requires enough of an investment of agency resources to carry out a preliminary environmental inquiry. Should such inquiry reveal that the federal action may significantly affect the quality of the environment, the USFS must prepare an EIS.

Closing the environmental review process on any major federal action¹¹ before providing the public sufficient evidence and analysis of the environmental impacts is contrary to law. We feel that the USFS has acted in such a contrary manner with regard to the EA for the Alisos, Oak Bar, and Santa Cruz Allotments. The following section details our rationale.

Specific Inadequacies of the EA for the Alisos, Oak Bar, and Santa Cruz Allotments

The EA for the Alisos, Oak Bar, and Santa Cruz Allotments constitutes inadequate environmental review for four main reasons. First, the EA uses inappropriate incorporation by reference throughout. Second, the EA fails to disclose and discuss the true environmental impacts of cattle grazing to riparian areas, water quality, wildlife, and threatened and endangered (T&E) species. Third, the EA offers no substantive range of alternatives to the proposed action. Fourth, the EA includes an inadequate discussion of the cumulative impacts of continued livestock grazing on the Coronado National Forest.

Taken either collectively or separately, these four failures bar the USFS from now issuing a FONSI for the reauthorization of grazing on the Alisos, Oak Bar, and Santa Cruz Allotments. We submit that each of the following four issues is significant enough to warrant the development of an EIS, and urge the USFS to do so in a timely manner.

1. INAPPROPRIATE INCORPORATION BY REFERENCE

In the very first paragraph of the EA for the Alisos, Oak Bar, and Santa Cruz Allotments, the USFS states that “throughout this EA, references to supporting documentation are shown in parenthesis. For example, a reference ‘(PR #21)’ would indicate that a specific passage in the EA is linked to information contained in document No. 21 in the project record.” The EA, however, fails to later disclose to which document each document number refers, and offers no instructions as to how one might retrieve this information.

⁸ See 40 C.F.R. § 1508.9.

⁹ See e.g. *Kern v. BLM*, 284 F.3d 1062 (9th Cir.2002); *Hall v. Norton*, 266 F.3d 969 (9th Cir.2001); *Blue Mountains Biodiversity Project*, 161 F.3d 1028 (9th Cir.1998); *Idaho Sporting Cong. V. Thomas*, 137 F.3d 1146 (9th Cir.1998).

¹⁰ See 40 C.F.R. § 1508.9.

¹¹ The issuance or re-issuance of a USFS grazing permit is a major federal action under NEPA.

In total, the EA includes 44 cross-references to the project record.¹² Each reference is used to support one or more of the USFS's contentions about the proposed action and/or its alternatives to that action. These contentions range from environmental impacts, to current conditions, to key issues previously raised by other commenting groups. Without more, this type of incorporation by reference is inappropriate and possibly illegal. We offer the following excerpt from a recent federal case out of California¹³ as an elaboration:

I begin by noting that **there is no apparent reason to believe that an incorporation process is appropriate relative to an EA.** Thus, although the CEQ regulations permit, under stringent standards discussed below, incorporation by reference in an EIS, 40 C.F.R. § 1502.21, no such provision is made for an EA. On the contrary, the regulations appear to contemplate that an EA will be a concise public document which briefly presents sufficient evidence and analysis for determining whether to prepare an EIS or a FONSI. 40 C.F.R. § 1508.9. **Given the purpose of an EA, [the no incorporation] restriction on the document does not appear unreasonable.**

[T]he threshold for requiring an EIS is quite low. Thus, only in those obvious circumstances where no effect on the environment is possible, will an EA be sufficient for the environmental review required under NEPA. Under such circumstances, **the conclusion reached must be close to self-evident and would not require an extended document incorporating other studies.** Moreover, **because the purpose of an EA is to decide whether an EIS must be prepared,** 40 C.F.R. § 1501.4(a), (b), (c); *Jones v. Gordon*, 792 F.2d 821, 827 (9th Cir.1986), **the document itself (and any attachments or appendices included with it) must facilitate or enable public comment concerning the agency's determination that the project does not significantly affect the environment.** *Cf. Sierra Club v. U.S. Forest Service*, 843 F.2d 1190, 1193 (9th Cir.1988).

[U]nder certain circumstances the law permits incorporation of materials by reference into an EIS. The propriety of such incorporation is dependent upon meeting three standards: **1) the material is reasonably available; 2) the statement is understandable without undue cross reference; and 3) the incorporation by reference meets a general standard of reasonableness.** *See California v. Bergland*, 483 F.Supp. 465, 485 (incorporation of material into a DEIS), *aff'd. in relevant part, California v. Block*, 690 F.2d 753, 765.

The EA for the Alisos, Oak Bar, and Santa Cruz Allotments constitutes inadequate environmental review because “the document itself” does not “facilitate or enable public comment concerning the agency’s determination that the project does not significantly affect the environment.” Each time the USFS cross-references a document that is not available to the public, it is leaving us in the dark as to the foundation for its assertions. We are not satisfied to accept your conclusions at face value. Based on the above judicial

¹² These references are found on pp. 5-7, 9, 11, 12, 15, 16, 21, 22, 25, 27, 29-32, & 36 of the EA.

¹³ *Sierra Club v. Babbitt*, 69 F.Supp.2d 1202, 1216-17 (E.D. Cal. 1999) (emphasis added).

decision, we are legally entitled to see the data upon which you are relying to make management decisions for these allotments.

Your incorporation by reference fails even when tested for meeting the lower EIS threshold for reasonableness. This is primarily because the material referenced is not “reasonably identified or available.” Concerned citizens from all over the country routinely comment on actions taken by the USFS that affect our public lands. Holding hard copies of the project record for general dissemination on an as-requested basis is unreasonable and inconvenient for the public at large.

You have told us that specific pieces of the project record are available upon request. While we appreciate that there is some avenue for obtaining this information, the comment period for this action is so short that there simply is no time to endeavor in the lengthy process of piecemeal information gathering. Concerned citizens should not have to make a specific request to your office each time they need to review a document referenced in the EA in order to understand your assertions. Instead, the conclusion reached in this EA should be “self-evident.” This can be accomplished either by including a hard copy of the project record with the EA or by making the project record available on your website, and referencing that site in the EA.

2. FAILURE TO PROVIDE SUFFICIENT EVIDENCE AND ANALYSIS OF ENVIRONMENTAL IMPACTS

Any EA must provide enough evidence and analysis of environmental impacts for the USFS to make an informed decision as to whether it should prepare an EIS.¹⁴ NEPA procedures must insure that *high quality* environmental information is available to public officials and citizens before decisions are made and before actions are taken.¹⁵ Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA.¹⁶ Most important, NEPA documents must concentrate on the issues that are truly significant to the action.¹⁷

Despite the federal requirement for high quality scientific disclosure throughout the NEPA process, the actual environmental consequences of continued livestock grazing are not fully disclosed and explained in the EA for the Alisos, Oak Bar, and Santa Cruz Allotments. This is unacceptable. Without sufficient knowledge of the environmental impacts that can be expected to flow from the proposed action, an informed decision as to whether those impacts are significant cannot be made.

The following sections explore the well documented and scientifically accepted environmental impacts of livestock grazing in the arid southwest. Although not politically appealing, these impacts are non-speculative and ecologically relevant. Their

¹⁴ See 40 C.F.R. § 1508.9(b).

¹⁵ See 40 C.F.R. § 1500.1(b).

¹⁶ *Id.*

¹⁷ See *id.*

disclosure in the EA for the Alisos, Oak Bar, and Santa Cruz Allotments is required by law.¹⁸

Cattle Grazing Destroys Riparian Areas & Impairs Water Quality

Riparian and stream ecosystems represent only 0.5 to 1% of the surface area of arid lands in the eleven western United States,¹⁹ yet support an estimated 60 to 70% of Western bird species²⁰ and as many as 80% of wildlife species in Arizona and New Mexico.²¹ Despite the immense ecological importance of these areas, grazing by livestock has damaged 80% of the streams and riparian ecosystems in arid regions of the western United States.²² As recently as 1990, the U.S. Environmental Protection Agency reported that “extensive field observations suggest that riparian areas throughout much of the West are in their worst conditions in history.”²³ In addition, a joint Bureau of Land Management (BLM) and USFS report concluded that “riparian areas have continued to decline” since grazing reforms in the 1930’s.”²⁴

The result of cattle grazing in and around riparian areas is nothing short of ecological collapse. A recent survey of scientific literature reported on the effects of livestock grazing on Western streams and riparian zones.²⁵ Cattle have a negative effect on water quality and seasonal quantity, stream channel morphology, hydrology, riparian zone soils, instream and stream bank vegetation, and aquatic and riparian wildlife.²⁶ Strikingly, this comprehensive survey of peer-reviewed, experimental and comparative studies found no positive environmental impacts due to cattle grazing.²⁷

Cattle not only destroy wildlife habitat through the degradation of water quality; they also impair human water supplies. Agriculture is the major source of water quality impairment in this country. Siltation, introduction of excessive “nutrient” materials, bacteria, proliferation of oxygen-depleting substances, and pesticides rank as the top causes of water quality decline in rivers.²⁸ Agriculture- including livestock production- is

¹⁸ 40 C.F.R. § 1508.9(b).

¹⁹ U.S. General Accounting Office. 1988. *Public rangelands: some riparian areas restored by widespread improvement will be slow*. GAO/RCED-88-105; see also Belsky, A.J., A. Matzke, and S. Uselman. *Survey of livestock influences on stream and riparian ecosystems in the Western United States*. *Journal of Soil and Water Conservation* 54 (1999): 419-431.

²⁰ Omart, R.D. 1996. *Historical and present impacts of livestock grazing on fish and wildlife resources in western riparian habitats*. Pp. 245-279. In: P.R. Krausman (ed.), *Rangeland wildlife*. Society for Range Management: Denver, CO; see also Belsky et al. (1999).

²¹ Chaney, E., W. Elmore, and W.S. Platts. 1990. *Livestock grazing on Western riparian areas*. Northwest Resource Information Center, Inc.: Eagle, ID; see also Belsky et al. (1999).

²² U.S. Department of Interior. 1994. *Rangeland reform '94, draft environmental impact statement*. Bureau of Land Management: Washington D.C.; see also Belsky et al. (1999).

²³ Chaney et al. (1990).

²⁴ U.S. Department of Interior (1994).

²⁵ Belsky et al. (1999).

²⁶ See *id.*

²⁷ See *id.*

²⁸ U.S. Environmental Protection Agency, *The Quality of Our Nation's Water: 1996- Executive Summary of the National Water Quality Inventory: Report to Congress*, EPA841-S-97-001 (Washington, D.C.: USEPA, Office of Water, 1998).

linked to all of them.²⁹ Livestock waste alone is a major factor in the nutrient pollution of streams, increase of pathogenic bacteria in water supplies, and the decline of dissolved oxygen levels in rivers, lakes, and other water bodies.³⁰ Cattle are by far the largest generators of waste, producing about 3.5 tons per year for every man, woman, and child in the United States.³¹

It is evident that the reauthorization of cattle grazing on the Alisos, Oak Bar, and Santa Cruz Allotments will continue to degrade water quality. The analysis area is located within three Fifth Code Watersheds, which constitute approximately 382,952 acres of land that are directly affected by the activities on the Alisos, Oak Bar, and Santa Cruz Allotments. The USFS has a legal duty to protect the rivers, streams, springs, seeps, and wetlands of the Coronado National Forest from its grazing permittees' pollution.

CWA § 313 requires federal agencies to “comply with...all state...and local requirements, administrative authority, and process sanctions respecting the control and abatement of water pollution in the same manner and to the same extent as any non-governmental activity.”³² The USFS will violate CWA § 313 if it allows its permittees to degrade water quality on the Coronado National Forest to such an extent that the Arizona water quality standards are exceeded. If the USFS reauthorizes grazing on an allotment where state water quality standards are known to be exceeded, it will be in violation of APA § 706(2)(A), as such action is surely arbitrary and capricious.

The Arizona Department of Environmental Quality has already identified impaired surface waters at the north end of the project area.³³ Regardless of the cause of such impairment, the fact that these water bodies are listed pursuant to CWA § 303(d) precludes the USFS from issuing or renewing grazing permits at this time. Because livestock grazing has been directly linked with declining water quality, no permits may be reissued before the Alum Gulch, Cox Gulch, and Three R Canyons water bodies have been improved and delisted.

Cattle Grazing Harms Wildlife and Further Imperils T&E Species

The detrimental effects of cattle grazing on wildlife and T&E species are numerous and far reaching. The presence of vast numbers of cattle on lands completely unsuitable for such pressure throws the ecosystem where they graze completely out of balance. Grazing depletes food sources necessary for sustaining wildlife by denuding the landscape of vegetation. Native flora not only provides direct nutritional value for herbivorous species, but also serves as prey base cover for carnivorous ones. As native vegetation is grazed to oblivion, exotic weeds invade, threatening grass and shrub ecosystems and disturbing the soil surface. Trampling breaks apart vital biological soil crusts, causes

²⁹ *Id.*

³⁰ Carter, John. *Stink water: declining water quality due to livestock production in Welfare ranching: the subsidized destruction of the American West*. Foundation for Deep Ecology (2002).

³¹ *Id.*

³² 33 U.S.C. § 1323(a)(1).

³³ EA, at 30 (citing Arizona Department of Environmental Quality. 2004. *Status of water quality in Arizona: the integrated 305(b) assessment and 303(d) listings report*).

erosion, and collapses stream banks. Riparian damage increases water temperature and sedimentation loads, which in turn degrades stream habitat for a host of aquatic species. Terrestrial species are also harmed by cattle grazing. Fencing and other so-called “range improvements” fragment habitat, creating edge effects and isolating populations.

NEPA and the ESA direct your discussion and decision regarding the reauthorization of livestock grazing in light of its impacts to other species. Birds, bears, wolves, frogs, snails, prairie dogs, sage grouse, and bison are but a few examples of wildlife being put at risk for the sake of subsidized public lands ranching. In addition to the abundance of wildlife there, the Alisos, Oak Bar, and Santa Cruz Allotments are home to several T&E species. These include the jaguar, Sonoran desert tortoise, pigmy owl, Mexican spotted owl, lesser long-nosed bat, Sonora tiger salamander, Chiricahua leopard frog, Gila topminnow, Pima pineapple cactus, and possibly the Sonoran pronghorn.

b. NEPA

NEPA requires that you disclose sufficient evidence and analysis of the real impacts of reauthorizing grazing on the Alisos, Oak Bar, and Santa Cruz Allotments to wildlife and T&E species.³⁴ In order to be “sufficient,” under NEPA, an EA or EIS must “put interested persons on notice of the significant impacts of [the] project on the environment.”³⁵ This means that cursory discussions and conclusory statements regarding findings of “no effect” are inadequate. Upon reading the EA, the public must get a real sense of how and why continued grazing on these allotments will or will not impact wildlife and listed species. The EA at issue completely fails in this regard, and is therefore inadequate and contrary to law.

a. ESA

When authorizing and/or issuing grazing permits on federal public land inhabited by T&E species, the USFS must comply with ESA §§ 7 and 9. ESA § 7(a)(1) requires the USFS to “carry out programs for the conservation of endangered species and threatened species....” Courts have interpreted this mandate as “a specific, rather than a generalized duty to conserve species.”³⁶ This means that the USFS “must utilize all [of its] authorities to ‘conserve’ the endangered [species there].”³⁷ The USFS must take active measures to encourage the propagation of healthy populations of T&E species on the Coronado National Forest. Because there is a direct causal link between livestock grazing and declining populations of each of the T&E species that inhabit the Alisos, Oak Bar, and Santa Cruz Allotments, the USFS must take real steps to relieve livestock pressures on the Coronado. This does not mean merely installing wildlife “friendly” fences³⁸ - this means significantly reducing if not eliminating the presence of cattle.

³⁴ See 40 C.F.R. § 1508.9(b).

³⁵ *Iowa Citizens for Environmental Quality, Inc. v. Volpe*, 487 F.2d 849, 853 (8th Cir. 1973).

³⁶ *Sierra Club v. Glickman*, 156 F.3d 606, 618 (5th Cir.1998); *Defenders of Wildlife v. Secretary, U.S. Dept. of the Interior*, 2005 WL 221253 (D.Or. Jan. 31, 2005).

³⁷ *Rio Grande Silvery Minnow v. Keys*, 2002 WL 32813602 (D.N.M. April 19, 2002).

³⁸ See EA, at 15.

ESA § 9 prohibits any person from “taking” a threatened or endangered species. “Take” is defined broadly under the ESA to include harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.³⁹ “Take” includes direct as well as indirect harm, and need not be purposeful.⁴⁰ Indeed, a take may even be the result of an accident.⁴¹ Causing or attempting to cause almost any level of injury to an endangered species is prohibited by law. “Take is defined in the broadest possible manner to include every conceivable way in which a person can ‘take’ or attempt to ‘take’ any fish or wildlife.”⁴²

ESA § 9 prohibits individuals, *as well as federal and state agencies*, from taking T&E species.⁴³ The ESA not only prohibits the acts of those parties that directly cause the taking, but also bans those acts of a third party that bring about the acts exacting a taking. “[A] governmental third party pursuant to whose authority an actor directly exacts a taking... may be deemed to have violated the provisions of the ESA.”⁴⁴ Therefore, ESA § 9 prohibits the USFS from issuing a grazing permit that authorizes a third party’s cattle operation if that operation harms or threatens to harm protected species or their critical habitat.⁴⁵

3. FAILURE TO PROVIDE SUBSTANTIVE RANGE OF ALTERNATIVES

NEPA requires federal agencies to consider alternatives to their proposed actions, and examine the environmental impacts of those alternatives. This requirement implements NEPA’s environmental policies. It requires federal agencies to consider whether they can carry out their proposed action in a less environmentally damaging manner, and whether alternatives exist that make the action unnecessary. In fact, the CEQ has described the alternatives requirement as the “heart” of environmental review.⁴⁶ The courts have been correspondingly emphatic, calling the alternatives requirement the “linchpin” of the EIS.⁴⁷

³⁹ 16 U.S.C. § 1532(19).

⁴⁰ See *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*, 515 U.S. 687, 704 (1995).

⁴¹ See *National Wildlife Federation v. Burlington Northern Railroad*, 23 F.3d 1508, 1512 (9th Cir.1994).

⁴² *Defenders of Wildlife v. Administrator, EPA*, 882 F.3d 1294, 1300 (8th Cir.1989).

⁴³ 16 U.S.C. §§ 1538(g) and 1532(13).

⁴⁴ *Strahan v. Coxe*, 127 F.3d 155, 163 (1st Cir.1997). See also *Defenders of Wildlife v. Administrator, EPA*, 688 F.Supp. 1334 (D.Minn. 1988), *aff’d by Defenders of Wildlife v. Administrator, EPA*, 882 F.3d 1294 (8th Cir.1989); *Loggerhead Turtle v. County Council of Volusia Co.*, 148 F.3d 1231 (11th Cir.1998), *cert. denied*, 526 U.S. 1081 (1999); *Sierra Club v. Lyng*, 694 F.Supp. 1260 (E.D.Tex. 1988), *aff’d by Sierra Club v. Yeutter*, 926 F.2d 429 (5th Cir.1991); and *U.S. v. Town of Plymouth, Mass.*, 6 F.Supp.2d 81 (D.Mass. 1998).

⁴⁵ See also *Defenders of Wildlife v. EPA*, 882 F.2d 1294 (8th Cir. 1989) and *Sierra Club v. Yeutter*, 926 F.2d 429 (5th Cir.1991).

⁴⁶ See 40 C.F.R. § 1502.14

⁴⁷ See *Monroe County Conservation Council, Inc. v. Volpe*, 472 F.2d 693 (2nd Cir.1972).

Importantly, the alternatives requirement also applies to the preparation of an EA.⁴⁸ NEPA § 102(2)(E) requires all agencies to “study, develop, and describe appropriate alternatives to recommended courses of action in *any* proposal which involves unresolved conflicts concerning alternative uses of available resources” (emphasis added).⁴⁹ The CEQ regulations require that an EA include “brief discussions of the need for the proposal, of alternatives as required by [NEPA § 102(2)(E)], [and] of the environmental impacts of the proposed action and alternatives.”⁵⁰ Courts, too, have stressed the importance of the alternatives requirement in the development of EAs. In doing so, they have required federal agencies “to study alternatives to any actions that have an impact on the environment, even if [it is ultimately determined that] the impact is not significant enough to require a full-scale impact statement.”⁵¹

Some courts have concluded that the duty to discuss alternatives in an EA under NEPA § 102(2)(E) is *at least as broad and may be broader* than the duty to discuss alternatives in an EIS. For instance, the Fifth Circuit has held that NEPA § 102(2)(E) is “supplemental and more extensive” than the alternatives requirement of an EIS.⁵² That court further stated that the purpose of NEPA § 102(2)(E) is “to insist that no major federal project would be undertaken without intense consideration of other more ecologically sound courses of action, including shelving the entire project...”⁵³

Here, the CEQ requires the USFS to present the realistic environmental impacts of its proposed action on the Alisos, Oak Bar, and Santa Cruz Allotments, as well as to present all reasonable alternatives to that action in comparative form.⁵⁴ A proper alternatives analysis should “rigorously explore” and “objectively evaluate” these alternatives, which means it should “devote substantial treatment to each alternative considered in detail—including the proposed action—so that reviewers may evaluate their comparative merits.”⁵⁵

⁴⁸ See e.g. *Greater Yellowstone Coalition v. Flowers*, 359 F.3d 1257 (10th Cir.2004); *Highway J Citizens Group v. Mineta*, 349 F.3d 938 (7th Cir.2003); *Mt. Lookout-Mt. Nebo Prop. Prot. Ass’n v. Federal Energy Regulatory Comm’n*, 143 F.3d 165 (4th Cir.1998); *Sierra Club v. Epsy*, 38 F.3d 792 (5th Cir.1994); *Senville v. Peters*, 327 F.Supp.2d 335 (D.Vt. 2004).

⁴⁹ 42 U.S.C. § 4332(2)(E).

⁵⁰ 40 C.F.R. § 1508.9(b).

⁵¹ See *City of New York v. United States Dep’t of Transp.*, 715 F.2d 732 (2nd Cir.1983), *appeal dismissed*, 465 U.S. 1055 (1984).

⁵² *Environmental Def. Fund. Inc. v. United States Army Corps of Eng’s*, 429 F.2d 1123 (5th Cir.1974); accord *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223 (9th Cir.1988).

⁵³ *Id.*

⁵⁴ See 40 C.F.R. § 1502.14.

⁵⁵ 40 C.F.R. § 1502.14(b); see also Council on Environmental Quality, “Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations,” 46 Fed. Reg. 18026, 18027, 18028 (1981): Question 5 (degree of analysis devoted to each alternative to be substantially similar to degree of analysis devoted to proposed action); Question 7 (contrasting discussion of alternatives with discussion of environmental consequences and suggesting that discussion of alternatives be presented concisely in comparative form, including charts and tables); see also 40 C.F.R. § 1502.2(d) (impact statement must state how alternatives achieve goals of statute); 40 C.F.R. § 1505.1(e) (alternatives considered by decision maker must encompass those included in impact statement); 40 C.F.R. § 1503.25(b) (alternatives to include no-action alternative, other reasonable courses of action and mitigation measures).

The range of alternatives to be set forth in an EA is governed by the “rule of reason,” and defined by the “purpose and need” of the action itself.⁵⁶ Again, the purpose of the proposed action is to authorize livestock grazing in a manner that maintains or improves project area resource conditions and achieves the objectives and desired conditions described in the Coronado National Forest Plan. Certainly, the USFS need not consider an infinite range of alternatives- but it must seriously consider all reasonable and feasible alternatives for fulfilling the project purpose.

The USFS failed to meet the alternatives requirement in the EA for the Alisos, Oak Bar, and Santa Cruz Allotments for two reasons. First, there are significant issues that exist on the allotment, which are not considered in the EA. Second, you failed to accurately disclose the benefits of adopting the No Grazing Alternative.

Significant Issue- Riparian and Watershed Health

The EA for the Alisos, Oak Bar, and Santa Cruz Allotments clearly states that each allotment suffers from degraded riparian and watershed health. The Alisos, for instance, is cited as in poor riparian condition in Sycamore Canyon.⁵⁷ Canyon bottoms and areas near waters are also in lower ecological condition than desired on the Santa Cruz, where water distribution is poor, and the use around existing waters is heavy.⁵⁸ Even the Oak Bar, where uplands are generally meeting CNFP objectives, has riparian areas and other lowland sites there show evidence of historic heavy use. This evidence includes low production, a preponderance of annuals, and a high percentage of bare soil.⁵⁹

In all cases, riparian damage on these allotments is- at least in part- a direct result of cattle grazing. Specifically, poor livestock distribution has been identified as a long-term concern, which has contributed to the current conditions.⁶⁰ Historic use has been heavy in drainage and canyon bottoms and around waters, with relatively little use on slopes and uplands.⁶¹

Despite the admitted damage on the allotments at issue, the EA offers no comprehensive strategy for improving riparian areas and watershed health. Instead, the EA merely proposes the following inadequate mitigation measures: “Necessary techniques will be used to...lessen the impact on sensitive areas. Practices include herding, salting, and controlling access to waters. Salt or similar supplements will be placed on god feed, one quarter to one half mile from waters, and salting locations will be moved annually.”⁶²

The CNFP contains a multitude of goals, standards, guidelines, emphases, and objectives relating to improving riparian health on the Coronado as a means of enriching wildlife habitat and enhancing water quality. For instance, controlling riparian standards and

⁵⁶ See 40 C.F.R. § 1502.13.

⁵⁷ See EA, at 6.

⁵⁸ See *id.*, at 7.

⁵⁹ See *id.*

⁶⁰ See *id.*, at 6.

⁶¹ See *id.*

⁶² EA, at 14.

guidelines include directives to: “manage riparian areas in accordance with legal requirements regarding flood plains, wetlands, wild and scenic rivers, and cultural and other resources; manage riparian areas to protect the productivity and diversity of riparian-dependent resources by requiring actions within or affecting riparian areas to protect and, where applicable, improve dependent resources; emphasize protection of soil, water, vegetation, and wildlife and fish resources prior to implementing projects; give preferential consideration to resources dependent on riparian areas over other resources; and recognize the importance and distinct values of riparian areas in Forest Plans.”⁶³ “Other resource uses and activities may occur to the extent that they support or do not adversely affect riparian-dependent resources.”⁶⁴

Elsewhere, the CNFP states that the USFS should “emphasize maintenance and restoration of healthy riparian ecosystems through conformance with forest plan riparian standards and guidelines,” and that “management strategies should move degraded riparian vegetation toward good condition as soon as possible.”⁶⁵ “Damage to riparian vegetation, stream banks, and channels should be prevented” in the Coronado,⁶⁶ as it is a Forest wide water goal to “provide a favorable water flow in quantity and quality for off-Forest users by improving or maintaining all watersheds to a satisfactory or higher level.”⁶⁷ In short, the CNFP directs the USFS, in unequivocal terms, to protect riparian areas on all areas of the Forest- including those areas used for cattle grazing.

We feel that the poor riparian and watershed health on the Alisos, Oak Bar, and Santa Cruz Allotments presents a significant issue giving rise to the need for a Riparian Alternative to the proposed action. Your failure to recognize this issue and proactively attempt to cure it is unlawful under both the CNFP and federal environmental statutes.⁶⁸ Although we whole-heartedly support the total elimination of cattle from this area, the USFS has a duty to present and adopt certain mitigating measures before reauthorizing livestock grazing if it chooses to move forward with the proposed action. These include, but are not limited to: permanent rest for all riparian areas; the construction of exclosures around all riparian areas within one year of permit renewal; and scheduled, ongoing riparian monitoring.

Significant Issue- Jaguar Recovery

Jaguars (*Panthera onca*), which are most commonly associated with dense semitropical or tropical rainforests of Brazil, Costa Rica, and Mexico, have a historic range that extends well into the United States, and as far north in Arizona as the Grand Canyon.⁶⁹ To be sure, the greatest number of jaguar reports north of the United States/Mexico

⁶³ CNFP, at 39 (these directives are presented here in no particular order).

⁶⁴ *Id.*

⁶⁵ *Id.*, at 18.

⁶⁶ *Id.*

⁶⁷ *Id.*, at 10.

⁶⁸ *See e.g.*, the NFMA, CWA, ESA, and APA.

⁶⁹ *See* Pavlik, S. 2003. Rohonas and spotted lions: the historical and cultural occurrence of the jaguar, *Panthera onca*, among the native tribes of the American southwest. *Wicazo Sa Review* Spring:157-175.

international border during the 20th century has come from Arizona.⁷⁰ Unfortunately, jaguars, like all other large predators, have suffered a tumultuous history at the hands of humans. Throughout the American Southwest, jaguars were indiscriminately killed to accommodate the needs of ranchers and homesteaders. In Arizona, the species had reached the point of extirpation by the 1960s.⁷¹

In 1997, the FWS belatedly listed the jaguar as an endangered species under the threat of litigation.⁷² Meanwhile, representatives of state and federal agencies and local governments signed a Memorandum of Agreement (MOA) to implement a Conservation Agreement for the jaguar.⁷³ Signatories of the MOA worked together to establish a Jaguar Conservation Team (JAGCT), Jaguar Working Group (JAGWG), Jaguar Scientific Advisory Group (JAGSAG), and various subcommittees to accomplish tasks outlined in the agreement and to determine how to best manage for jaguars in Arizona and New Mexico.⁷⁴ The JAGCT/JAGWG consists of representatives of state and federal land and wildlife management agencies, as well as non-profit organizations and private citizens with an interest in jaguars or jaguar management in the southwestern United States.⁷⁵

Jaguar conservation efforts are greatly needed in Arizona,⁷⁶ where the thinly scattered resident population was historically larger than is seen today.⁷⁷ It is generally accepted that the recent sightings of male jaguars in the southwestern United States are dispersing animals from populations in Sonora, Mexico,⁷⁸ where jaguar habitat is becoming smaller and more fragmented due to expanding human populations.⁷⁹ This means that Sonoran jaguars may need to occasionally and temporarily disperse north until territory opens up in the breeding population.⁸⁰ Thus, *any* American habitat is potentially significant for Sonoran jaguar populations, and we must create and protect international travel corridors to maintain access for these animals.⁸¹ The JAGSAG has explicitly stressed the importance of identifying and maintaining a travel corridor between the jaguar population

⁷⁰ Rabinowitz, AR. 1999. *The present status of Jaguars (Panthera onca) in the southwestern United States*. The Southwestern Naturalist 44:96-100.

⁷¹ See Swank, WG and JG Teer. 1989. *Status of the jaguar*. Oryx 23:14-21.

⁷² Pavlik (2003).

⁷³ Johnson, TB and WE Van Pelt. 1997. *Conservation Assessment and Strategy for the Jaguar in Arizona and New Mexico: Nongame and Endangered Wildlife Program Technical Report 105*. Arizona Game and Fish Department, Phoenix, AZ.

⁷⁴ Hatten, JR, A Averill-Murray, and WE Van Pelt. 2003. *Characterizing and Mapping Potential Jaguar Habitat in Arizona: Nongame and Endangered Wildlife Program Technical Report 203*. Arizona Department of Game and Fish, Phoenix, AZ.

⁷⁵ *Id.*

⁷⁶ See Appendix Item 1, which shows the locations of reliable jaguar sightings in Arizona.

⁷⁷ See Brown, DE and CA Lopez Gonzales. 2001. *Borderland Jaguars*. University of Utah Press, Salt Lake City, UT.

⁷⁸ Hatten (2003).

⁷⁹ (Friederici, P. 1998. *Return of the jaguar*. National Wildlife 36:48-51; Rabinowitz 1999).

⁸⁰ Hatten (2003).

⁸¹ Miller, B, AR Rabinowitz, and CA Lopez Gonzalez. 2000. *Memorandum to jaguar scientific advisory group*. 11/14/00.

in Sonora, Mexico and Arizona, stating that without the corridor, there is little hope of jaguars visiting or occupying this state.⁸²

Travel corridors potentially exist on the Alisos, Oak Bar, and Santa Cruz Allotments.⁸³ Indeed, this area has been identified as “ideal” for jaguar recovery.⁸⁴ All of these allotments sit within a potentially suitable jaguar biome, as identified by the JAGHAB.⁸⁵ Moreover, the best-suited area for jaguar conservation is located in southeastern Arizona in Santa Cruz, Pima, Cochise, and Graham Counties.⁸⁶ These counties are collectively known as Zone 1, which is shown in Appendix Item 3 herein. As you can see, Zone 1 resembles an inverted V with the southern end separated by a swath of agricultural and developed land, or land that is more than 5 km from a spring or more than 10 km from perennial/intermittent waters. Habitat corridors form to the south and north of the Cochise/Graham County boundary.⁸⁷ Based upon the jaguar distribution patterns in southeast Arizona, Hatten (2003) suspects that there are habitat corridors in Mexico that connect southeast Arizona to the northern-most established jaguar population in the Sierra Madres.

Neither the elevation nor rugged terrain⁸⁸ of the Alisos, Oak Bar, and Santa Cruz Allotments make them unsuitable for successful jaguar habitation. Conversely, jaguars have been found at varying elevations and in a wide variety of vegetation communities, including semi-desert grasslands.⁸⁹ The majority of jaguar sightings in Arizona have been in scrub grassland between 1220 and 1829 m, in intermediately to extremely rugged terrain, and within 10 km of a water source.⁹⁰ Unfortunately, human activities within the last century have impacted all three of these seemingly important habitat components for jaguar.⁹¹ Scrub grasslands of southeastern Arizona have become increasingly dominated by desert scrub vegetation due to extensive fire suppression and cattle grazing.⁹² Human activities have also caused many watercourses to become dry or intermittent.⁹³

The amount of area identified as potentially suitable jaguar habitat in AZ ranges from approximately 21 to 30% of the state.⁹⁴ While elevation may not limit the distribution of jaguars in AZ, distance to water surely does and may provide an explanation to the wandering patten of jaguars searching for suitable habitat. Sixty-four percent of jaguars occur within 5 km of perennial/intermittent creeks or rivers, 76% within 10 km, and 84% within 20 km.⁹⁵ Furthermore, 80% of jaguars occur within 2.5 km of a spring, and 96%

⁸² Hatten (2003).

⁸³ See EA, at 18.

⁸⁴ See Hatten (2003).

⁸⁵ See Appendix Item 2.

⁸⁶ Hatten (2003).

⁸⁷ *Id.*

⁸⁸ Appendix Item 4 illustrates the rugged quality of the action area, which lies wholly within Zone 1.

⁸⁹ Robinowitz (1999); Brown and Lopez Gonzales (2001).

⁹⁰ Hatten (2003).

⁹¹ *Id.*

⁹² *Id.*

⁹³ Robinowitz (1999).

⁹⁴ Hatten (2003).

⁹⁵ Appendix Item 5 shows the proximity of jaguar sightings to perennial or intermittent waters.

within 5 km.⁹⁶ When springs and rivers/creeks are combined, 100% of the reliable sighting records are within 10 km of a water source.

Due to the presence of riparian areas on the Alisos, Oak Bar, and Santa Cruz Allotments,⁹⁷ these allotments could serve as productive habitat for jaguars if livestock grazing did not occur there. Habitat studies in the core part of jaguar range indicate a close association with water, dense cover,⁹⁸ sufficient prey⁹⁹ and an avoidance of highly disturbed areas.¹⁰⁰ Eliminating cattle from these allotments would allow them to recover ecologically, encourage the free dispersal of jaguar via travel corridors, and open this “ideal habitat” up for recovery.

Jaguars do not respect political or legal boundaries, and the USFS is charged with aiding their recovery as they disperse into this country from Mexico.¹⁰¹ Jaguars range across many nations and habitat types, making international cooperation a necessity for jaguar conservation.¹⁰² While the most important large expanse of occupied jaguar habitat is centered in the Amazon Basin, Sanderson and others have stressed the importance of protecting jaguar populations in all the significantly different ecological settings in which they occur.¹⁰³ This includes populations at the fringe of the species’ range in the Sierra Madres of Mexico. Indeed, these fringe areas (including the southwestern United States) could become important to the conservation of the species if present rates of tropical forest conversion continue, threatening jaguar survival in the heart of the range.¹⁰⁴ Jaguar distribution patterns over the last 50 years suggest that Zone 1 in southeast Arizona is the most likely area for future jaguar occurrence in the United States, and is therefore a hotspot for conservation.¹⁰⁵

Despite the overwhelming evidence that this area is critical to jaguar recovery, the EA for the Alisos, Oak Bar, and Santa Cruz Allotments makes no attempt to raise the jaguar issue or discuss the negative implications that continued cattle grazing could hold for the recovery of this species. Because whether livestock grazing should be reauthorized on the Alisos, Oak Bar, and Santa Cruz Allotments turns, in part, on the magnitude and proposed resolution of potential jaguar-livestock conflicts there, a “jaguar alternative” falls well within the “rule of reason.” Accordingly, environmental review of the proposed action cannot close until this integral alternative is developed and submitted for public comment.

⁹⁶ Appendix Item 6 shows the proximity of jaguar sightings to springs.

⁹⁷ See Appendix Items 5 and 6.

⁹⁸ See Schaller, GB and PG Crawshaw. 1980. *Movement patterns of jaguar*. Biotropica 12:161-168.; see also Quigley, HB and PG Crawshaw. 1992. *A conservation plan for the jaguar Panthera onca in the Pantanal region of Brazil*. Biological Conservation 61:149-157.

⁹⁹ See Seymour, KL. 1989. *Mammalian Species*, Panthera Onca. The American Society of Mammalogists 340:1-9; see also Swank, WG and JG Teer. 1989. *Status of the jaguar*. Oryx 23:14-21.

¹⁰⁰ See Quigley and Crawshaw (1992).

¹⁰¹ See 16 U.S.C. § 1536.

¹⁰² Sanderson, EW, KH Redford, CB Chetkiewicz, RA Medellin, AR Rabinowitz, JG Robinson, and AB Taber. 2002. *Planning to save a species: the jaguar as a model*. Conservation Biology 16:58-72.

¹⁰³ *Id.*

¹⁰⁴ Miller et. al (2000).

¹⁰⁵ Hatten (2003).

4. FAILURE TO CONDUCT ADEQUATE CUMULATIVE IMPACTS ANALYSIS

Although not explicitly required by NEPA, a discussion of the cumulative environmental effects of a proposed action is an essential part of the environmental review process,¹⁰⁶ for otherwise the combined environmental effect of related actions will not be evaluated. Although the CEQ regulations explicitly apply to EISs, the courts readily apply these regulations to EAs.¹⁰⁷ “Cumulative impact” is defined 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. . . . Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”¹⁰⁸

The CEQ interprets NEPA and its corresponding regulations as requiring analysis and a concise description of the identifiable present effects of past actions. The USFS must do this to the extent that they are relevant and useful in analyzing whether the reasonably foreseeable effects of the current agency proposal may have a continuing, additive and significant relationship to those effects.¹⁰⁹ The courts of appeal have adopted different tests to determine what cumulative impacts must be included in a discussion of environmental impacts. The Ninth Circuit, for example, applied the CEQ regulation that all “reasonably foreseeable” actions that have potential cumulative impacts must be addressed in an EIS or EA.¹¹⁰

Given the damage that grazing causes to wildlife and T&E species through riparian devastation and overall habitat destruction, the reauthorization of grazing on the Alisos, Oak Bar, and Santa Cruz Allotments cannot be analyzed in a vacuum. Actions currently taken on this allotment will be felt far beyond its boundaries and well into the future. Indeed, it is the culmination of effects brought on by the government-sanctioned grazing of over 300 million acres of land in the arid west¹¹¹ that has led to biological travesty we now see unfolding. The Alisos, Oak Bar, and Santa Cruz Allotments are part of a larger ecosystem, and should be analyzed as such.

Although some cumulative impacts analysis was offered, the EA should have included a *thorough* analysis of cumulative effects reflective of the “hard look” that NEPA

¹⁰⁶ See *Tomac v. Norton*, 433 F.3d 852 (D.C. Cir.2006).

¹⁰⁷ See e.g., *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208 (9th Cir. 1998); *American Canoe Ass'n v. White*, 277 F. Supp. 2d 1244 (N.D. Ala. 2003); 40 C.F.R. § 1508.9; and 40 C.F.R. § 1508.8.

¹⁰⁸ 40 C.F.R. § 1508.7; see also *Inland Empire Pub. Lands Council v. United States Forest Serv.*, 88 F.3d 754 (9th Cir. 1996); and *Coalition on Sensible Transp., Inc. v. Dole*, 826 F.2d 60 (D.C. Cir. 1987).

¹⁰⁹ See 40 C.F.R. § 1502.22.

¹¹⁰ See e.g. *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208 (9th Cir. 1998) (environmental assessment for timber sale must address cumulative effects of other “reasonably foreseeable” timber sales in the forest); *Kern v. United States Bureau of Land Mgmt.*, 284 F.3d 1062 (9th Cir. 2002) (timber sales); *Muckleshoot Indian Tribe v. United States Forest Serv.*, 177 F.3d 800 (9th Cir. 1999) (land exchange); *City of Tenakee Springs v. Clough*, 915 F.2d 1308 (9th Cir. 1990) (logging in forest); *Northern Alaska Envtl. Center v. Norton*, 361 F. Supp. 2d 1069 (D. Alaska 2005) (oil and gas leasing, must analyze effects of proposed plan amendment).

¹¹¹ Wuerthner (2002).

requires.¹¹² This means the analysis must disclose the potential for cumulative significant impacts on *all values and resources on the allotments*, such as wildlife, water quality, vegetation, recreation, etc. Without a serious cumulative effects analysis, the USFS cannot be said to have taken a “hard look” at the potential effects of the reauthorization of one or more term livestock permits, when taken together with those of other past, present, or reasonably foreseeable actions that affect the allotments. This failure thwarts the underlying purpose of NEPA, which is to “insure that environmental information is available to public officials and citizens before decisions are made.”¹¹³

The EA should have explored how the reauthorization of grazing on the Alisos, Oak Bar, and Santa Cruz Allotments will further exacerbate the degradation of all connected watersheds, and how additional fragmentation may affect overall accessibility of wildlife habitat. The fact that the Alisos, Oak Bar, and Santa Cruz Allotments could play a critical role in jaguar recovery over the next ten years makes cumulative impacts analysis here even more imperative. The cumulative impacts of grazing on the Coronado National Forest as a whole must be analyzed in light of jaguar recovery efforts.

THE NEED FOR AN EIS

Due to the inadequacies described above, the USFS must complete an EIS for the reauthorization of grazing on the Alisos, Oak Bar, and Santa Cruz Allotments. The public is legally entitled to be made aware of this project’s full environmental impacts to the Coronado National Forest. Closing environmental review on this decision would run contrary to NEPA and the APA. This is because the issuance of a FONSI would likely lead to agency violations of the ESA, the CWA, and the CNFP.

When undertaking a more thorough environmental analysis at the EIS level, we urge you to fully explore the issues described in the preceding sections, and conduct a realistic cost/benefit analysis of continuing to use the Alisos, Oak Bar, and Santa Cruz Allotments for grazing as opposed to opening this public land up to further the larger public interest.

Costs v. Benefits of Continued Livestock Grazing on our Public Lands

A true cost/benefit analysis of continued livestock grazing on the arid public lands of the American Southwest reveals the heavy burden paid by the public at large for the slight benefit reaped by a select few. Surely, the only “benefit” of continued grazing on the Alisos, Oak Bar, and Santa Cruz Allotments is that of a financial subsidy to the associated permittees. The public has no obligation to financially support ranchers who are engaged in an economically dwindling and environmentally destructive industry. When, as here, the benefits of ranching are not commensurate with the costs, the USFS has no obligation to do so either.

¹¹² See *Kleppe v. Sierra Club*, 427 U.S. 390 (1976).

¹¹³ 40 C.F.R. § 1500.1(b); see also *Sierra Club v. Watkins*, 808 F.Supp. 852, 858 (D.D.C. 1991).

The benefit of continued grazing on these three allotments outweighs neither the ecological costs nor the financial burden to the American taxpayer. In order to continue livestock grazing on the action area, the USFS will need to build 6.75 miles of pipeline on the Oak Bar Allotment alone, and invest approximately \$100,000 over the life of the entire project.¹¹⁴ We do not support funding expensive range improvements as a means of enabling continued public lands livestock grazing. This practice is neither ecologically nor economically sustainable.

The Government Accountability Office (GAO) has reported that the federal government spends at least \$144 million each year managing private livestock grazing on federal public lands, but collects only \$21 million in grazing fees. This equates to a net loss of at least \$123 million per year.¹¹⁵ Considering the additional direct and indirect costs not included in the GAO report, economists have estimated that the federal public lands grazing on BLM and USFS lands may cost as much as \$500 million to \$1 billion annually.¹¹⁶

The benefits that would flow from the elimination of cattle, however, are numerous. Besides its inherent value, livestock-free and fence-free wildlife habitat enhances opportunities for ecological services and recreational uses. There is rising demand for outdoor recreation on our public lands. As a recently released report emphatically illustrates, the economic contribution of recreationists to the national economy is staggering in the United States today.¹¹⁷

From birdwatchers to mountain bikers, outdoor enthusiasts bring in almost \$300 billion in annual retail sales, and contribute more than twice that to the United States economy. Outdoor recreationists spend \$46 billion a year on the gear they need to recreate in the American woods, rivers, and slopes. They spend five times that much- \$243 billion- on the food, lodging, entertainment, and transportation they require along the way. In all, active outdoor recreation pumps \$730 billion annually into the United States economy.

The recreation industry supports about 6.5 million jobs, and associated annual tax revenues add up to \$88 billion a year. Wildlife viewing is currently the most common outdoor activity, with birding alone attracting 66 million people last year. Biking is the second most favored outdoor activity. In fact, 60 million people took part in cycling last year, while those taking to the trails for running, hiking, rock climbing or backpacking totaled 56 million.

The EIS for the Alisos, Oak Bar, and Santa Cruz Allotments should attempt to accurately quantify the income of enhanced hunting and recreation, along with the non-monetary

¹¹⁴ See EA, at 35.

¹¹⁵ GAO. 2005. Livestock grazing: federal expenditures and receipts vary, depending on the agency and the purpose of the fee charged. GAO-05-869. Government Accountability Office. Washington, D.C.

¹¹⁶ Moscowitz, K. and C. Romaniello. 2002. *Assessing the full cost of the federal grazing program*. Center for Biological Diversity. Tuscon, AZ. The estimated cost of the federal grazing program at \$500 million is consistent with estimates developed by other experts.

¹¹⁷ Joanne Kelly, *US Impact of Outdoor Recreation: \$730 Billion*, Scripps Howard News Service, Sept. 18, 2006 (all information cited in the following two paragraphs was obtained from this article).

ecological and social benefits, which would arise from the cessation of grazing, and the devotion of the allotment to wildlife and other unique resources. The USFS must consider socio-economic benefits not only to permittees and local communities, but also to the entire public now and in future generations, as they are the ultimate owners and inheritors of this land.

Furthermore, any consideration of the “lifestyle and culture” of ranching must be weighed explicitly against the “lifestyle and culture” interests of the far more numerous hikers, hunters, fishers, and professional or amateur mycologists, ornithologists, entomologists, herpetologists, botanists, mammalogists and other zoologists, wilderness lovers and bird watchers that frequent and enjoy the biodiversity and landscape of this allotment. Through appropriate social survey, the USFS should estimate the actual demand for these services.

Although the EA states that it is no longer the policy of the USFS to weight values such as environmental quality,¹¹⁸ federal law requires just this type of inclusion in a cost-benefit analysis. In its provisions specifying the requirements for environmental decision-making by federal agencies, NEPA requires that agencies develop methods to ensure that “presently unquantified environmental amenities and values” be given appropriate consideration in decision-making along with economic and technical considerations.¹¹⁹ The EIS for the reauthorization of grazing on the Alisos, Oak Bar, and Santa Cruz Allotments should include a proper cost-benefit analysis, which realistically takes environmental quality into account.

A Call to Adopt the No Grazing Alternative

Again, we strongly encourage the USFS to develop an EIS. We feel that a realistic analysis of both the consequences of continued grazing on the Alisos, Oak Bar, and Santa Cruz Allotments and the benefits of eliminating livestock there will lead you to adopt the No Grazing Alternative. The history of cattle grazing on these allotments has severely damaged their natural values. We believe a period of long-term rest will be the best and most sustainable use of the Alisos, Oak Bar, and Santa Cruz Allotments at this time.

We are concerned that any continuation of livestock grazing is inconsistent with federal environmental laws and the broader public interest mandate of the USFS. We are dismayed at the USFS’s longstanding policy of prioritizing the economic benefit to livestock grazing permittees over all other concerns, including benefits to wildlife, riparian areas, watershed health, and the United States taxpayer. We would like to see the USFS begin to adjust this policy to reflect the growing interest of all Americans in conservation of our public lands. The USFS can begin doing so now by giving serious consideration to the ecological and economic benefits of the No Grazing Alternative to the reauthorization of grazing on the Alisos, Oak Bar, and Santa Cruz Allotments.

¹¹⁸ See EA, at 36.

¹¹⁹ 42 U.S.C. § 4332(B).

Thank you again for this opportunity to participate in this planning process, and please keep us apprised of future actions for these allotments.

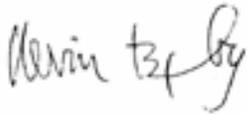
Respectfully submitted,



Melissa Hailey
Grazing Reform Program Attorney
Forest Guardians
312 Montezuma Ave., Suite A
Santa Fe, NM 87501
505.988.9126 x159
mhailey@fguardians.org



David R. Parsons
Carnivore Conservation Biologist
The Rewilding Institute
8613 Horacio Place NE
Albuquerque, NM 87111
505.275.1944
pbc@cybermesa.com



Kevin Bixby, Executive Director
Southwest Environmental Center
275 North Downtown Mall
Las Cruces, NM 88001
(505) 522-5552 (505) 526-7733 fax
www.wildmesquite.org

APPENDIX¹

Item 1: Locations of Reliable Jaguar Sightings in Arizona

Item 2: Potentially Suitable Biomes

Item 3: Suitable Habitat in Zone 1

Item 4: Terrain Ruggedness Index

Item 5: Proximity to Perennial or Intermittent Waters

Item 6: Proximity to Springs

¹ All Appendix Items are taken from Hatten (2003). Internal citations are shown.

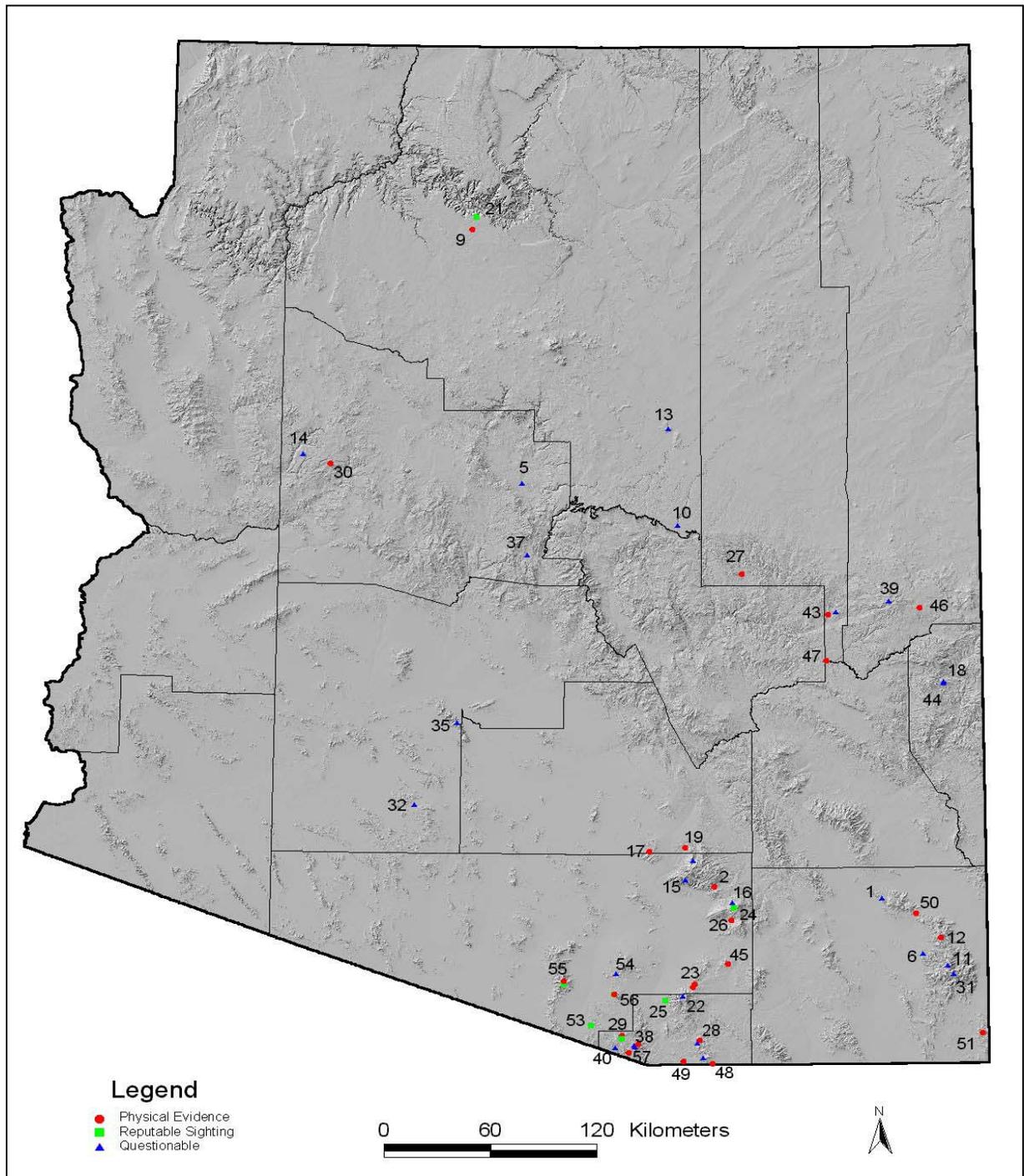


Figure 1. The 57 sighting records used in our analysis. Only sites with physical evidence (Class 1), or those observed by a reliable person (Class 2), or those that could be accurately mapped were considered for model construction. (see Appendix 1).

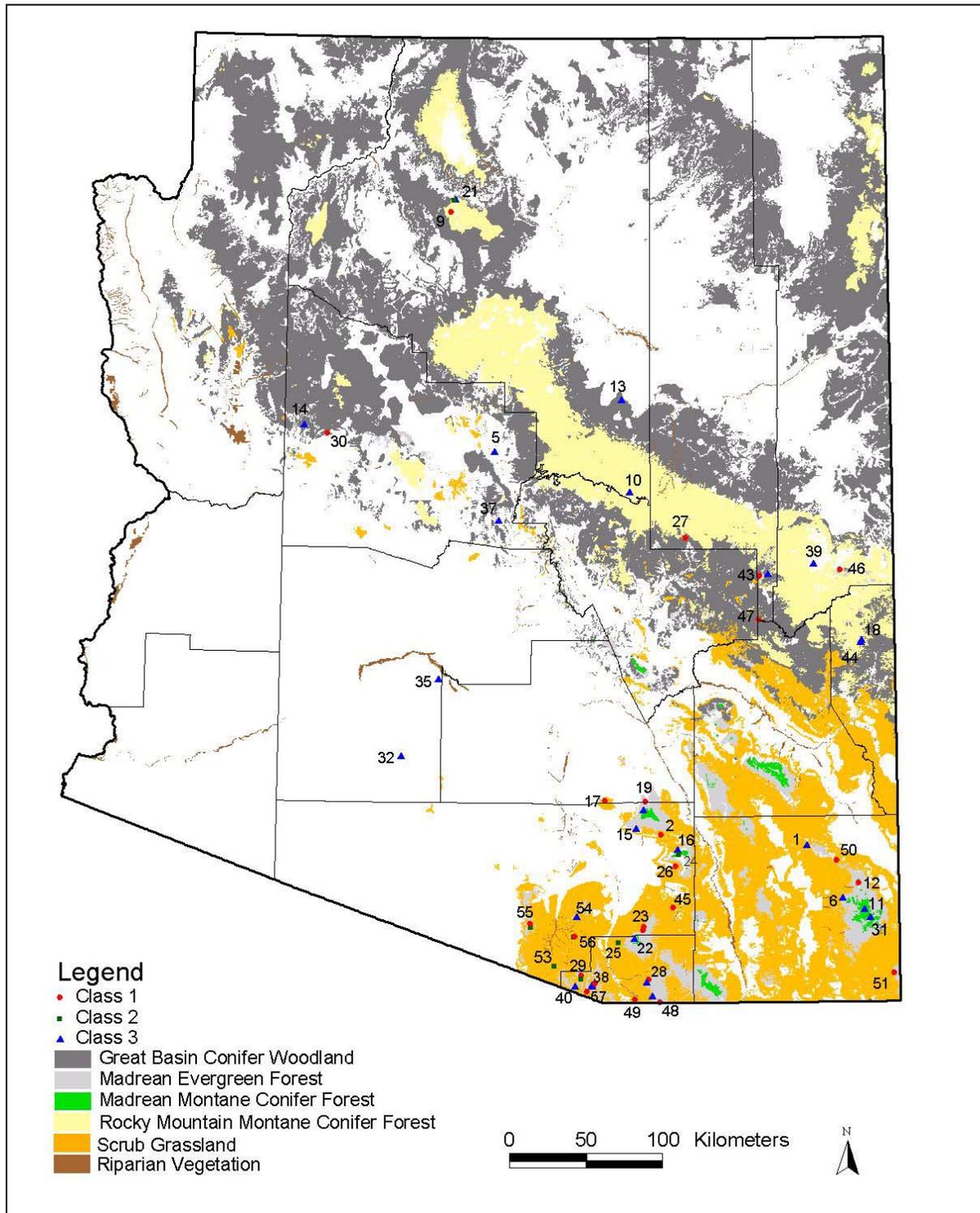


Figure 12. Potentially suitable biomes identified by JAGHAB, but only 4 contained Class 1 or 2 sightings (Great Basin Conifer Woodland, Madrean Evergreen Forest, Rocky Mountain Montane Conifer Forest, and Scrub Grassland). The riparian vegetation contains 4 biomes.

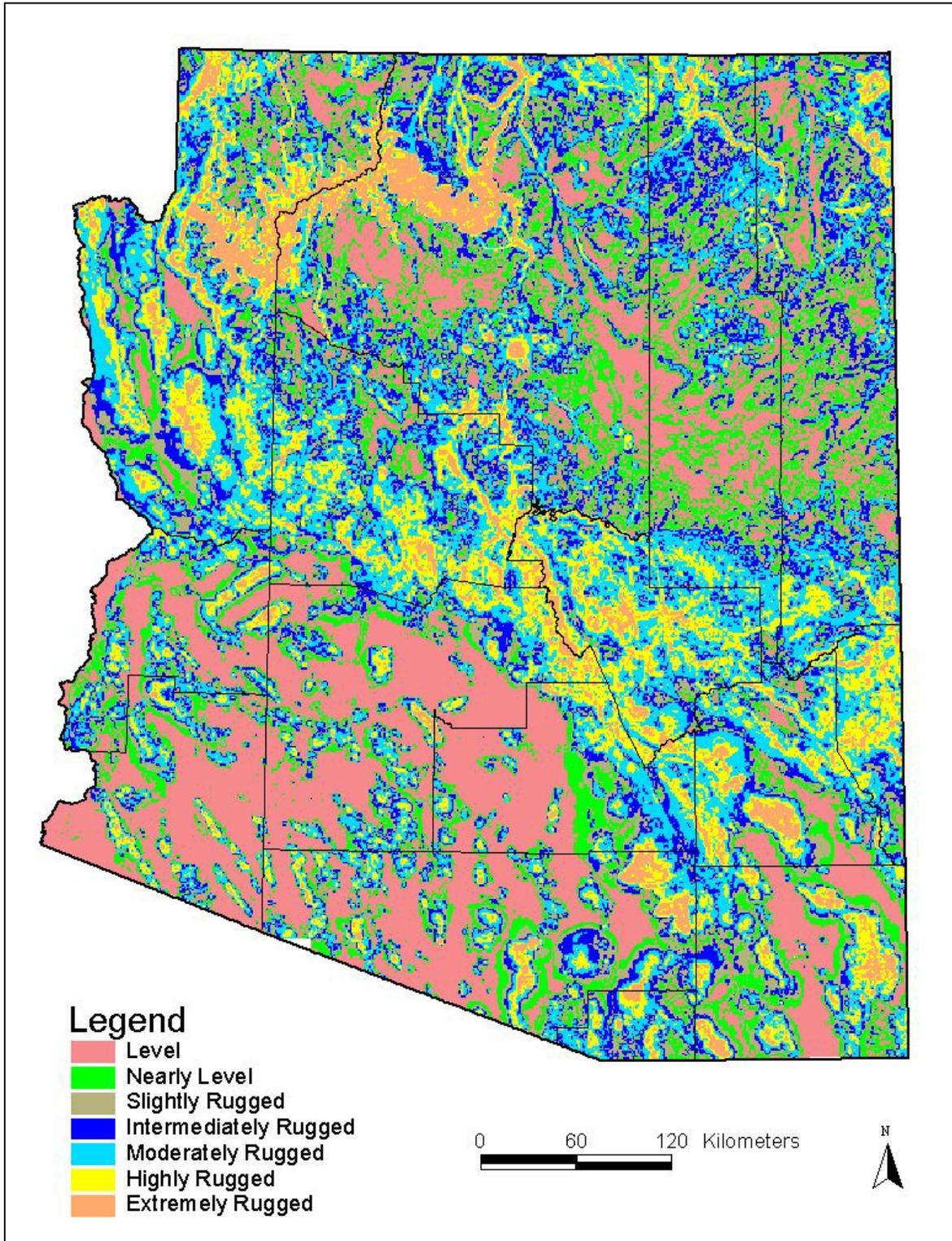


Figure 5. A Terrain Ruggedness Index (TRI) map of Arizona.

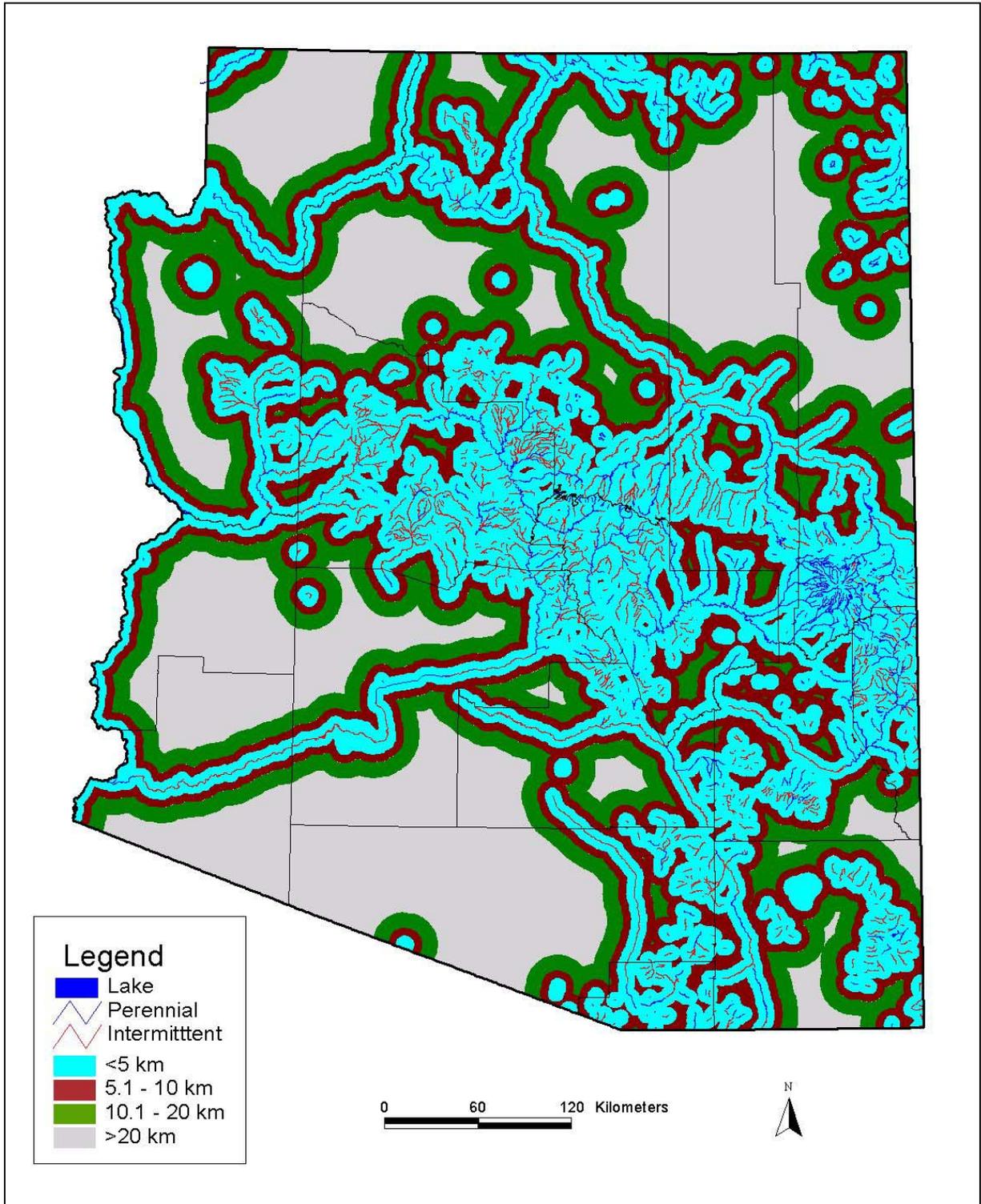


Figure 6. Proximity to perennial or intermittent waters (not including springs).

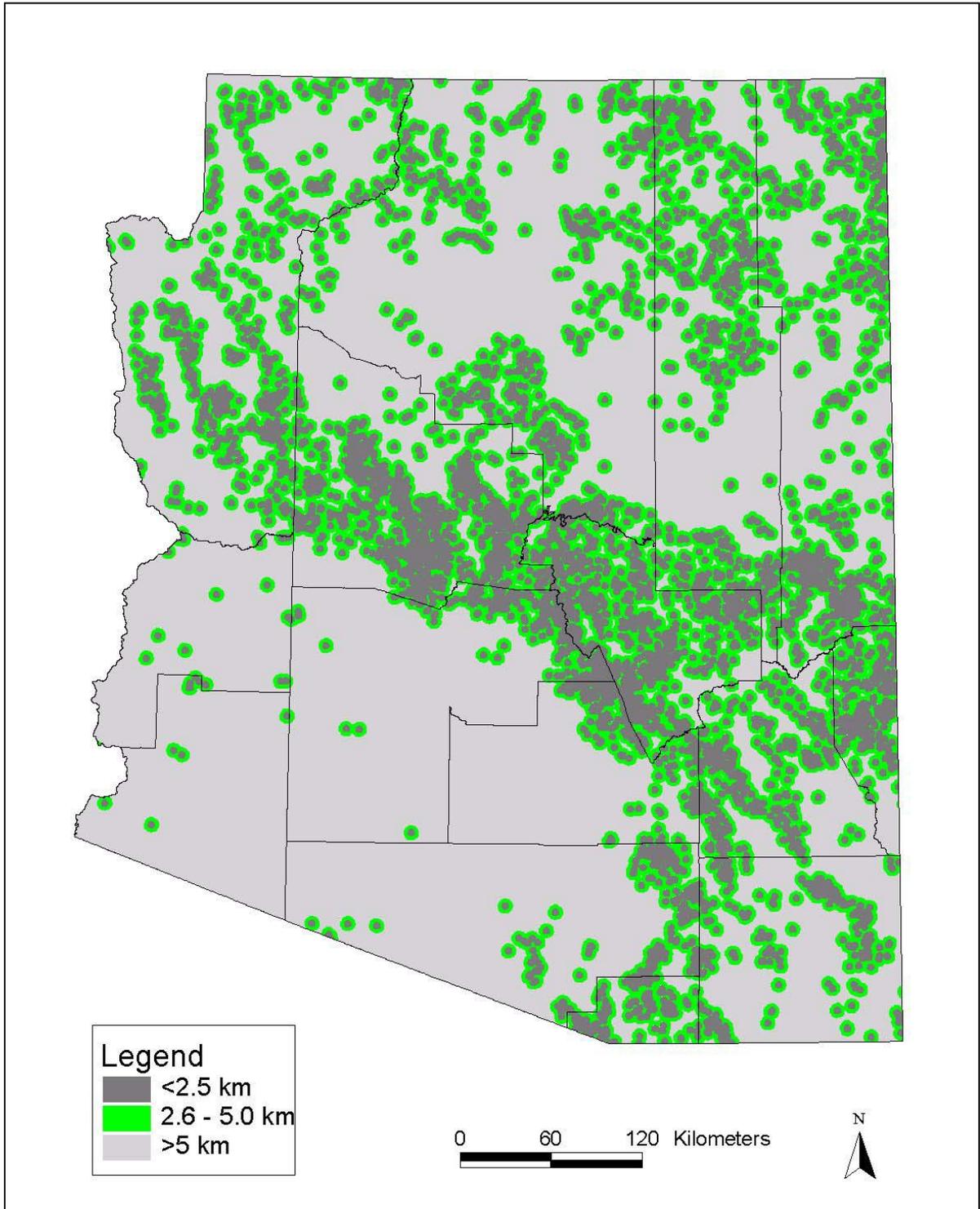


Figure 7. Proximity to springs in Arizona.