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Grand Canyon Chapter • 202 E. McDowell Rd, Ste 277 • Phoenix, AZ 85004
Phone: (602) 253-8633 Fax: (602) 258-6533 Email: grand.canyon.chapter@sierraclub.org

July 31, 2014

Shalonda Guy
Deputy District Ranger
Coronado National Forest
5700 N. Sabino Canyon Road
Tucson, Arizona 85750
Submitted via email to comments-southwestern-coronado@fs.fed.us

RE: Draft Environmental Assessment for Authorizing Helicopter Use By The Arizona Game and Fish Department Within Pusch Ridge Wilderness

Dear Shalonda Guy:

Please accept these comments on behalf of Sierra Club's Grand Canyon (Arizona) Chapter and our more than 35,000 members and supporters.

Sierra Club is one of the oldest grassroots environmental organizations in the country. Sierra Club's mission is "to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; and to educate and enlist humanity to protect and restore the quality of the natural and human environments." Many of our members use and enjoy the Pusch Ridge Wilderness and were significantly involved in its establishment. Sierra Club has also been involved in efforts to keep development from creeping close to the Santa Catalina Mountains and to ensure that healthy populations of predators, including mountain lions, thrive along with other species on our public lands.

Due to the significant impact and controversy associated with the Santa Catalina Bighorn Sheep Restoration Project, Sierra Club asks the Forest Service to prepare an Environmental Impact Statement (EIS). The National Environmental Policy Act (NEPA) requires federal agencies to prepare a detailed EIS for all major Federal actions significantly affecting the quality of the human environment. (42 U.S.C. § 4332[2][C]). If an agency decides not to prepare an EIS, it must supply a "convincing statement of reasons" to explain why the project's impacts will be insignificant (*Blue Mountains Biodiversity Project*, 161 F.3d at 1212). "The statement of reasons is critical to determining whether the agency took a 'hard look' at the potential environmental impact of a project" (*Id.*). In considering whether an EIS is required for a proposed action, the Council on Environmental Quality regulations direct agencies to consider ten "significance factors" (40 C.F.R. § 1508.27[b]; *Sierra Club v. Bosworth*, 2007 U.S. App. LEXIS 28013 [9th Cir. 2007]). "[Any] of these factors may be sufficient to require preparation of an EIS in appropriate circumstances" (*National Parks and Conservation Assoc. v. Babbitt*, 241 F.3d 722, 731 [9th Cir. 2001]).

NEPA emphasizes "coherent and comprehensive up-front environmental analysis" to ensure an agency "will not act on incomplete information, only to regret its decision after it is too late to correct" (*Blue*



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Mountains Biodiversity Project v. Blackwood, 161 F.3d 1208, 1216 [9th Cir. 1998]). NEPA thus requires federal agencies to analyze the direct, indirect, and cumulative impacts of the proposed action (42 U.S.C. § 4332[C]; 40 C.F.R. §§ 1508.7, 1508.8, 1508.25 [the scope of a proposed action must include connected, cumulative, and similar actions]; *Sierra Club v. Bosworth*, 2007 U.S. App. LEXIS 28013 [9th Cir. 2007]). Cumulative impacts include the impact on the environment that 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). A cumulative effects analysis must also provide detailed and quantifiable information and cannot rely on general statements and conclusions (*Neighbors of Cuddy Mountain v. U.S. Forest Service*, 137 F.3d 1372, 1380 [9th Cir. 1998]).

As noted above, the significance of this proposed action is enough to trigger the need for an EIS, as is the highly controversial nature of this issue and the need for a thorough cumulative impacts analysis. There has been significant controversy both within Tucson and well beyond, including in Yuma, where our members have expressed concerns about the impacts on the source bighorn sheep populations, as well as in other communities around the state.

The Draft EA does not justify a Finding of No Significant Impact under NEPA, so again, an EIS is warranted for this project.

Purpose and Need

We question the purpose and need statement contained in the Draft Environmental Assessment (DEA), which states, “The purpose of this project is to support the Arizona Game and Fish Department in the implementation of state bighorn sheep management and research objectives by authorizing the landing of helicopters within Pusch Ridge Wilderness to manage existing bighorn sheep populations through monitoring, conducting research, investigating sheep mortality, replacing/retrieving malfunctioning collars, and capturing bighorn sheep” (DEA at p. 10).

As the DEA acknowledges, the reason for the local extirpation of bighorn sheep is unknown, “. . . although it is believed reduced habitat quality due to a long regime of fire suppression, human disturbance from increased recreation and urbanization, disease, and predation were contributing factors” (DEA at p. 9). Allowing helicopters in wilderness for monitoring will not help the bighorn sheep adapt to their surroundings, nor will it address the underlying issue of habitat, urban encroachment, and lack of habitat connectivity. In fact, the helicopters will result in additional disturbance and invasive procedures,¹ as well as the possibility of death during capture. To ensure the success of this reintroduction project and the long-term survival of this species in the area, the Arizona Game and Fish Department (AGFD) should focus on maintaining and improving habitat, whereas use of helicopters in this sensitive area could further degrade the habitat characteristics in the area through added noise and disturbance.

The following statement in the DEA is unsubstantiated: “The inability for AGFD to access sheep has made it difficult for AGFD to meet the Department’s bighorn sheep management objectives” (DEA at p. 10). How so? Isn’t the objective to have strong sustainable populations of bighorn sheep? If so, aren’t habitat issues a primary concern, one that cannot be addressed by use of helicopters in habitat that is

¹ Bleich, V.C., R.T. Bowyer, A.M. Pauli, M.C. Nicholson, and R.W. Anthes. 1994. Mountain sheep *Ovis Canadensis* and helicopter surveys: ramifications for the conservation of large mammals. *Biological Conservation* 70(1): 1–7.

already less than ideal for this species? We would like clarification of how helicopters will help the AGFD meet its objectives with regards to this project.

Desired Condition

This proposed action is unlikely to meet the following desired conditions,² as outlined in the Coronado National Forest Land Management Plan (LRMP):

- Standards and Guidelines #1 – Maintain or improve occupied habitat of commonly hunted species, O&M (DU 10) C02 listed threatened and endangered species, and management indicator species through mitigation of Forest activities with cooperation of New Mexico Department of Game and Fish, Arizona Game and Fish Department, and US Fish and Wildlife Service. Where applicable consult with other wildlife and plant oriented groups and affected parties. (See Appendix H of the LRMP for minimum desired habitat acres).
- Standards and Guidelines #5 – Reintroduce extirpated native species into historical habitats in accordance with cooperative interagency plans.

In fact, there is a solid argument that this proposal to use helicopters in the wilderness will have a detrimental impact on the wilderness values, including on the endemic wildlife. We continue to have significant concerns about the Santa Catalina Bighorn Sheep Restoration Project as proposed by AGFD and about the assumptions the Forest Service is making relative to that project.³ While we support restoration of native species to their natural habitat, we do question the efficacy of introducing animals to an area where they disappeared, where it is unclear why the population died out, and where a majority of the habitat is only poor to fair. It is that last factor that is of particular concern for this project and why this action is unlikely to address the desired condition. Encroaching development has impacted the lower elevation pastures where bighorn sheep historically grazed, while fire exclusion and climate change have diminished the quality of the Pusch Ridge habitat to only poor to fair.

Considering that many of the bighorn sheep that have been killed have been in the poor habitat areas, it is not a stretch to think that habitat issues continue to be a major factor in their demise. Rather than continuing to release bighorn sheep into habitat that is considered poor, something that is a detriment to the bighorn sheep as well as to other native species (i.e., mountain lions), we ask that you seek to improve the habitat conditions before proceeding further with this project. Additionally, habitat improvement should remain the focus of this project, which, as noted above, would not be aided by allowing helicopters in this wilderness area.

Laws, Regulations, and Policies

Sierra Club is a strong supporter of wilderness protections. In passing the Wilderness Act of 1964, Congress made clear its intent to provide places in this country free from expanding settlement and growing mechanization, providing a wilderness experience insulated from the sliding scale produced by increased population and evolving technology and undiminished by time. In reviewing any proposed action in wilderness, it is imperative to heed the words of the Wilderness Act and to ensure that all actions are consistent with it:

² Coronado National Forest Plan (1986, amended June 2005).

³ Scoping Comments for the Proposed Helicopter Exemption for the Pusch Ridge Wilderness, Sierra Club, March 7, 2014.

A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. [Wilderness is] an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions. (16 U.S.C. § 1131 [c])

We have significant concerns about the potential impacts of this proposal on the wilderness and wilderness values. We are especially concerned about the duration of 10 years and the potentially high number of helicopter landings; although the DEA provides an estimate of fewer than 20 helicopter landings per year, there is no actual restriction on the number of flights or landings. Likewise, we do not see any analysis or citation relative to how this estimate was developed. If you consider the past eight months of the project, a helicopter would have landed at least 15 times for mortalities alone. It is difficult to assess with the limited information available how many times helicopters would have landed to address collar failure and for collaring of lambs.

The DEA underestimates and fails to adequately analyze the impact of helicopter use on the wilderness and wilderness values, including native endemic species of wildlife, vegetation, soils, natural quiet, recreation, and cultural sites. Additional information and more thorough analysis is needed on these impacts in order for the Forest Service to make an informed decision.

Modified Proposed Action

The Forest Service has failed to recognize and address the controversy with this project and, in choosing the “Modified Proposed Action,” is flaunting the provisions of the Wilderness Act and NEPA. Additionally, selection of this alternative disregards and could negatively affect the full complement of native wildlife species, including their habitat.

According to the DEA,

The Coronado National Forest proposes as its modified proposed action to authorize the use and landing of helicopters by the Arizona Game and Fish Department within the Pusch Ridge Wilderness of the Santa Catalina Ranger District. Helicopters would be used to monitor population, conduct research, investigate sheep mortality, replace/retrieve malfunctioning collars, and capture bighorn sheep within Pusch Ridge Wilderness for a Pusch Ridge Wilderness Helicopter Operation period of 10 years. These activities are necessary for the Arizona Game and Fish Department to meet bighorn sheep management objectives. Helicopter-supported capture of bighorn sheep with net-guns would occur to support bighorn sheep population monitoring and collar repair/retrieval on existing bighorn sheep in order for AGFD to monitor movements of bighorn sheep remotely. (DEA at pp. 15–16)

We question the assertion that helicopters are needed to meet bighorn sheep objectives and are concerned about the harm they will do over a 10-year period to the wilderness values and to other wildlife; the DEA does not even mention the potential of increased mortality of mountain lions as a result of this project, even though it is clear that helicopters could be used to aid in removal of individual lions. We also question whether the use of helicopters would actually increase the success of the project, as discussed above.

The Forest Service failed to adequately consider and analyze alternatives to the use of helicopters. Additional information and analysis is needed about the full range of impacts from this proposed action, as well as from other alternatives, in order for the Forest Service to be able to make an informed decision. Such information and analysis should be included in an EIS.

Alternatives

Alternative 1 (No Action)

Because the Forest Service has failed to evaluate the full range of reasonable alternatives and because neither the Forest Service nor AGFD are addressing urban encroachment, habitat fragmentation, and habitat quality associated with this project, we have no choice but to support the No Action alternative. This alternative will best protect the resources of the wilderness, wildlife (including bighorn sheep and other native species) and vegetation, as well as natural quiet. Given that helicopters in this wilderness will not address any of the longer term factors mentioned above, as well as could facilitate additional disturbance to the bighorn sheep and the killing of more mountain lions, we ask that the Forest Service select the No Action alternative.

Alternative 2 (Modified Proposed Action)

As noted above, we cannot support the Modified Proposed Action for several reasons and do not believe it will meet the desired conditions as outlined in the Coronado National Forest LMRP. As outlined in the DEA, this alternative would allow “approximately 20 helicopter landings” over a period of 10 years. Based on the past year of experience with the project, the estimate that there would be 20 or fewer helicopter landings is extremely low. Because of that, the DEA underestimates the impact of those landings on the wilderness, the wildlife, and the other resources in Pusch Ridge Wilderness.

The initial Proposed Action was to allow helicopter landings for four years, which was already a long period of time to allow the disturbance in wilderness and its associated impacts on wildlife. Ten years is indefensible – and frankly irresponsible – on the part of the Forest Service, especially in light of the fact that this proposal is unlikely to contribute to the success of the bighorn sheep relocation project over the long term and is likely to result in the death of more mountain lions and perhaps other predator wildlife species.

It appears that the Modified Proposed Action would include netting the sheep in the wilderness and then transporting them outside the wilderness to a staging area to process the sheep. This seems like it would create additional trauma for the bighorn sheep as well as add stress to the personnel involved. The additional risks and stress associated with this are not addressed in the DEA. That should be further analyzed in additional NEPA on the project.

We would like clarification about the following statement: “Bighorn sheep would be processed and fitted with collars outside of wilderness to avoid additional helicopter landing time in wilderness unless the intent of the capture is to release the bighorn sheep on site for monitoring purposes” (DEA at p. 21). When would a bighorn sheep be released on-site as opposed to outside of the wilderness area? Please explain the rationale behind this and how it will further the objectives of the reintroduction project.

Alternatives Considered But Eliminated

Because the Forest Service has failed to do a NEPA analysis on the bighorn sheep reintroduction project itself, an alternative that considers ground-based monitoring is warranted. The Forest Service should conduct a thorough analysis of how current proposal and the bighorn sheep project with ground-based monitoring affects the wilderness and surrounding non-wilderness Forest Service land. It should include an analysis of the impacts on local plants, animals, recreation, wilderness values, and more. It should also include an analysis of the impact of individuals tracking mountain lions and other predators associated with bighorn sheep kills.

Affected Environment and Environmental Consequences

Wilderness Resources and Character

As noted above, Sierra Club is concerned about the significant and negative impact this project will have on the Pusch Ridge Wilderness, its resources, and its character. We again ask that the Forest Service address underlying habitat issues before proceeding with any aspects of this project and then to seriously consider ground-based monitoring versus helicopter monitoring to minimize impacts on the wilderness and its wildlife. The Minimum Requirements Decision Guide (MRDG) requires the Forest Service to determine if “any administrative action is necessary to meet minimum requirements to administer the area for the purposes of the Wilderness Act” (DEA at p. 28). The DEA does not make it clear that helicopter use is the minimum requirement. The analysis for this proposed action is flawed as it assumes that helicopter monitoring is necessary and that such monitoring will also be beneficial to the bighorn sheep. Even if some action is determined to be necessary, we question that helicopters are the minimum tool for monitoring and collaring bighorn sheep and are very concerned that they will be used to facilitate tracking and killing of additional mountain lions.

Alternative 1 (No Action)

Environmental Consequences

Currently, AGFD is authorized to hover over the Pusch Ridge Wilderness in a helicopter below 2,000 feet, which is already having some impact on the wilderness, the wildlife, and certainly the natural quiet. No additional helicopter use should be authorized, and the Forest Service should re-evaluate the current authorized hovering and its impact on the wilderness character and the wildlife. Analysis of the impacts from the current helicopter use will also help inform future decisions regarding helicopter use in this wilderness area and others.

Alternative 2 (Modified Proposed Action)

Environmental Consequences

The effects of the Modified Proposed Action on the wilderness and the wilderness character are likely to be significant due to the extended period of time (10 years) being considered for helicopter landings and due to the likely detrimental impact on native wildlife (including mountain lions, which the DEA fails to acknowledge at all). The Modified Proposed Action will significantly affect the “Untrammelled” and the “Natural” aspects of wilderness, as well as the “Outstanding Opportunities for Solitude or Primitive and Unconfined Recreation.” Because the DEA underestimates the likely number of landings and the impact of those landings, the conclusion that the impacts are minor, moderate, or will actually improve the naturalness is erroneous. Again, there is no analysis in the DEA that supports the assertion that use of helicopters will improve the success of the bighorn sheep reintroduction. Likewise, the DEA fails to

address the potential negative impact on the naturalness associated with disruption of the bighorn sheep and the likely killing of more mountain lions.

Alternative 2 (Modified Proposed Action)

Wildlife

Under the Modified Proposed Action, there would be helicopter landings in the Pusch Ridge Wilderness associated with monitoring, research, bighorn sheep mortality investigation, and bighorn sheep collaring throughout a 10-year period. The DEA underestimates the impact of this action on a variety of wildlife species, including the bighorn sheep themselves. Without the needed habitat improvements, will this monitoring cause more harm than good to the bighorn sheep, especially considering that the animals have already been significantly stressed in the translocation process and the fact that they have been introduced into an area with different – and primarily fair to poor – habitat? The Forest Service must thoroughly analyze these issues; the results of this analysis should then be detailed in an EIS.

The DEA gives cursory analysis of the Modified Proposed Action with regards to other native wildlife species and fails to even mention the likely impact on mountain lions and perhaps other predators. Considering that the protocol is to kill a mountain lion that has preyed on a bighorn sheep, how will having a helicopter land to immediately investigate a bighorn sheep mortality affect the mountain lions in the area? What other predators might be affected? How would this impact populations of these species in the area as well as the ecosystem as a whole? The DEA does not address any of these factors.

As the Forest Service knows, healthy predator populations are critical for a healthy and properly functioning ecosystem. Predators contribute to the fitness of ungulate and other prey species, and the interaction between top predators and prey species affects the behavior of prey species, as well as of other predator species.^{4,5,6} Because this proposed action has the potential to affect a range of species, including predators, it could cause unintended consequences, as is discussed in the previously referenced studies. For example, if use of helicopters facilitates the removal of more mountain lions than would otherwise be removed, other prey species, such as mule deer (mountain lions' preferred prey), could increase and could potentially compete with bighorn sheep as well as negatively impact the habitat. Similarly, removal of additional mountain lions could result in the increase of other predator species, which could also negatively impact bighorn sheep and other species.

By focusing on the impacts to only one species (i.e., bighorn sheep) as a result of this project, the Forest Service ignores potential impacts to other species, to the habitat, and to the ecosystem as a whole. A more thorough analysis is needed that includes potential impacts to each of these factors. The results of this analysis should be presented and thoroughly discussed in an EIS.

Summary

Due to the potential significant and detrimental impacts on the wilderness and its wildlife, we ask that the Forest Service choose the No Action alternative. Additionally, in order to better assist reintroduction of bighorn sheep to this area, we ask that the Forest Service consider limiting helicopter hovering over the

⁴ Beschta, R.L., and W.J. Ripple. 2009. Large predators and trophic cascades in terrestrial ecosystems of the western United States. *Biological Conservation* 142(11): 2401–2414.

⁵ Miller, B., B. Dugelby, D. Foreman, C. Martinez del Río, R. Noss, M. Phillips, R. Reading, M.E. Soulé, J. Terborgh, L. Willcox. 2001. The importance of large carnivores to healthy ecosystems. *Endangered Species Update* 18(5): 202–210.

⁶ Ripple, W.J., A.J. Wirsing, C.C. Wilmers, M. Letnic. 2013. Widespread mesopredator effects after wolf extirpation. *Biological Conservation* 160: 70–79.

wilderness until the habitat issues associated with this project have been addressed. Furthermore, any consideration of helicopter use in the wilderness should be for a shorter duration and should be evaluated for any actual benefits or harm to wilderness, wildlife, and other resources, including the bighorn sheep and mountain lions. In lieu of choosing the No Action alternative, the Forest Service should, at a minimum, prepare an Environmental Impact Statement.

Thank you for considering our comments. Please keep us informed about any developments or actions related to this proposal.

Sincerely,

A handwritten signature in black ink, appearing to read "Sandy Bahr". The signature is fluid and cursive, with the first name "Sandy" and last name "Bahr" clearly distinguishable.

Sandy Bahr
Chapter Director
Sierra Club – Grand Canyon Chapter