Forest Service | Washington Office | 1400 Independence Avenue, SW Washington, DC 20250

File Code: 1570 **Date:** NOV 13 2014
Route To:

Subject: Appeal Decision for the Kaibab National Forest Land and Resource Management Plan

To: Regional Forester, R-3

This is my decision on the appeals of the Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) for the Kaibab National Forest Land and Resource Management Plan (Forest Plan). All appeals of the Forest Plan have been consolidated into one set of issues and one decision is being rendered. The issues were sufficiently similar to allow consolidation (Optional Appeal Procedures, Section 13(b)). The appeal reference numbers are abbreviated throughout this decision document by the last four digits of the tracking number for the notice of appeal (NOA).

Three appeals were submitted under the Optional Appeal Procedures and two were considered in my decision. The third appeal was withdrawn by the appellant during the review process following discussion and agreement with your office and the Kaibab National Forest over actions to be taken to address the appellant's concerns. The two appeals addressed in my review and decision are as follows:

Appeal #0176 – Erik Ryberg, representing Friends of Anderson Mesa and Western Watersheds Project

Appeal #0177 – Jay Lininger, representing Center for Biological Diversity and co-appellants Grand Canyon Wildlands Council and Sierra Club Grand Canyon Chapter

Each lead appellant will receive notification of my decision. The final appeal decision is available via the Web at http://www.fs.fed.us/emc/applit/nhappdec.htm or in hard copy, upon request.

You signed the ROD for the Forest Plan on February 3, 2014, revising the 1988 Kaibab National Forest Land and Resource Management Plan. The Forest Plan conforms to the 1982 planning regulations at 36 CFR 219 [1982, as amended] (ROD, p. 9). The 1982 planning regulations referenced by the Regional Forester were last published in the Code of Federal Regulations (CFR) on July 1, 2000[1]. The record for the appeal to the Chief of the Forest Service was transmitted in conformance with the Optional Appeal Procedures at Section 15(a).

[1] The Kaibab National Forest Land an d Resource Management Plan was prepared under the Forest and Rangeland Renewable Resources Planning Act (RPA) of 1974 as amended by the National Forest Management Act (NFMA) of 1976 (16 U.S.C. 1600 et seq.), the implementing regulations of the NFMA at 36 CFR 219 (77 FR 21260, April 9, 2012), and the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 et seq.) and its implementing regulations (40 CFR 1500-1508).

Kaibab National Forest Land and Resource Management Plan

The Forest Plan guides the Kaibab National Forest in fulfilling its stewardship responsibilities to best meet the needs of the American people for the present and into the future. The Forest Plan provides a framework to promote ecological integrity and guide management on the Kaibab so that it is ecologically sustainable and contributes to social and economic sustainability. The Forest Plan is strategic in nature and does not specifically authorize or prescribe any specific projects or activities.

The Forest Plan includes "plan components" and "other content."[2] Any substantive changes to plan components require a plan amendment with appropriate analysis as required under the National Environmental Policy Act (NEPA). A change to "other content" may be made using an administrative correction process. The public is notified of all administrative corrections of the Forest Plan.

Issues

This appeal decision is the outcome of a deliberative and extensive review process. My review of the appellants' concerns provides a response to issues involving complex regulatory and management issues. Although some issues raised in the appeals are not specifically cited in this decision, all appellants' concerns have been considered. My appeal review focused mainly on compliance of the ROD and FEIS with applicable law, regulation, and policy, as cited by appellants.

Appellants raised appeal issues concerning procedural and planning requirements, as well as a range of natural resource issues, which included grazing; riparian habitat; viability of federally-listed and other species; climate change; and vegetation management. Appellants alleged various violations of the National Environmental Policy Act (NEPA), National Forest Management Act (NFMA), Endangered Species Act, and Administrative Procedure Act.

Appeal Decision

Your decision meets the requirements of applicable federal law, regulations, and policy and is therefore affirmed. Attachment 1 describes my response to those issues raised by appellants where I affirmed without instruction the analysis and decision to select Alternative B from the FEIS and approve the Kaibab National Forest Land and Resource Management Plan.

However, we did identify several issues that brought to light needs to clarify or otherwise correct certain information in the planning documents. Below is my response to those issues for which I affirm your decision but determined a need to instruct follow-up action.

NFMA's current implementing regulations at 36 CFR 219.17(b)(3) (77 FR 21270) allow the use of the provisions of the prior planning regulation, including its transition provisions (2000 Planning Rule at 36 CFR 219.35(a) and (b) (December 18, 2009). The transition provisions of the 2000 planning rule allow the use of the prior planning regulation promulgated in 1982.

[2] Plan components (decisions) include: goals/desired conditions, objectives, standards, guidelines, suitability of uses, management areas (including designated areas), and monitoring.

Use of lead ammunition

Issue: Appellants contend that the Regional Forester was required by Federal law to consider whether or not the use of lead ammunition should be banned to protect California condors when he revised the Forest Plan for the Kaibab National Forest, and that he failed to meet this obligation. (#0177, pp. 22-23)

Response:

The National Forest Management Act (NFMA) requires that the Secretary of Agriculture develop, maintain, and revise plans for units of the National Forest System, and promulgate regulations to set out the process for the development and revision of such plans. 16 U.S.C. 1604(a), (g). The planning regulation at issue, 36 CFR 219.19, requires that plans provide for the management of fish and wildlife habitat "to maintain viable populations of existing native and desired non-native vertebrate species in the planning area." It is these provisions of the NFMA and implementing regulations appellants claim were violated when the Regional Forester revised the plan for the Kaibab National Forest.

As discussed in the administrative record supporting the Regional Forester's plan revision decision, ingestion of lead ammunition by condors, which remains in the carcasses of game discarded or abandoned by hunters, presents a serious obstacle to recovery of the condor population. The concern is also discussed by the U.S. Department of the Interior, Fish and Wildlife Service (FWS) in its rule establishing the nonessential experimental population of California Condors in Northern Arizona. 61 Fed. Reg. 54044 (October 16, 1996). Therein, the FWS determined that it would address the potential problem of lead poisoning through hunter education, and voluntary programs for use of alternative ammunition by hunters. The FWS specifically determined that new hunting regulations would not be required. Id. At p. 54055.

The EIS, ROD, and administrative record supporting the Regional Forester's plan revision decision fully evaluated and disclosed the potential effect of lead ammunition on condors. The Regional Forester reasonably concluded, in consultation with the FWS through the preparation of a Wildlife Specialist Report (pp. 4-45), Biological Assessment (BA), and Biological Opinion (BO), Appendix A that further measures to ban or limit the use of lead ammunition were not warranted. This determination rested in large part upon the lack of recent documented locations of condors occurring outside of the nonessential experimental population (10(j)) area on the Kaibab, the conclusion that voluntary measures in Arizona have been largely successful, and belief that continuing lead poisoning problems were the result of hunting in the adjacent State of Utah, which has not yet adopted such voluntary measures, and which would not be affected by limits or bans on the Kaibab Forest in Arizona.

Appellants are correct in their assertion that statements in the record concerning the regulatory mechanisms for implementing a ban or limitation on use of lead ammunition, or that consideration of such measures was "outside the scope" of the analysis, would not, in and of themselves, excuse consideration of the effects of lead ammunition, or of limitations of the use of lead ammunition on National Forest System land within the Kaibab National Forest. The Forest Service has a number of mechanisms by which it could limit the use of lead ammunition on NFS land, including rulemaking under 36 CFR 261.70, or closure orders under 36 CFR 261.53 or 261.58, depending on the scale of the limitations and area to which they would be applied. It is not uncommon for forest plans to contain standards, guidelines, or desired conditions that require future action to implement. While the Regional Forester was correct that a

forest plan may not, in and of itself, create a legally enforceable ban or limitation on the public's use of lead ammunition on NFS land, the plan could set standards, guidelines, or desired conditions to set the stage for such a limitation to be implemented by future action. However, notwithstanding suggestions in the administrative record that consideration of the effects of lead ammunition, or limitations on use, was outside the scope of the environmental analysis or plan revision decision, the Regional Forester did in fact consider the effects of lead ammunition on condors, and reasonably concluded that no additional steps were required in the revised forest plan.

The Regional Forester fully evaluated and disclosed the effects of lead ammunition on condors in the FEIS, ROD, and supporting record. His decision not to include a ban or limitation on the use of lead ammunition is adequately supported by that record. (Wildlife Specialist Report, pp. 4-45; FEIS, pp. 133-134; BA; BO; ROD) The agency charged with the recovery of the California condor, the FWS, has not indicated that bans or limitations on lead ammunition on the Kaibab National Forest are necessary for the recovery of condors, or that such measures would be effective if limited to a single National Forest. The FWS concurred in the September 10, 2013, BO with the "may affect, not likely to adversely affect" determinations for the California condor outside of the nonessential experimental population area. (Nonessential experimental populations (i.e. California condor within the 10(j) area) are addressed by FWS as "proposed" species under Section 7 consultation procedures. By definition, a "nonessential experimental population" is not essential to the continued existence of the species. Therefore no proposed action impacting a population so designated could lead to a jeopardy determination for the entire species. Conferencing concerning effects to "proposed" species is not a requirement under ESA regulations and FWS does not provide concurrences for jeopardy-level determinations of proposed species.)

The statements in the FEIS (pages 9, 96, 379, 380) and ROD (page 17) indicating that the Forest Service would have to use rulemaking procedures in order to limit the use of lead ammunition should be clarified to indicate that other legal mechanisms could be used, if deemed necessary or appropriate, to limit the use of lead ammunition on in a national forest, depending upon the scope and scale of the limitations. Under Section 14(a) of the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended by section 11 of the National Forest Management Act of 1976 (NFMA) (16 U.S.C. 1612(a)), the Forest Service is required to give the public notice and opportunity to comment on the formulation of standards, criteria, and guidelines applicable to Forest System programs. Whether or not limitations on the use of lead shot in a national forest would meet the requirement for public notice and comment under Section 14(a) of NFMA would likely hinge on the size of the area affected, and the length of time the limitations would be in effect, among other factors.

However, for purposes of the plan revision and this appeal, the available mechanisms by which limitations on the use of lead ammunition could be implemented do not determine whether or how those limitations should be considered in a forest plan revision. The Regional Forester is required in the plan revision process to identify and evaluate public issues and management concerns to determine major public issues, management concerns, and resource use and development opportunities to be addressed in the plan. 36 CFR 219.12(b). After adoption or revision of a plan, the various mechanisms for carrying out the elements of a forest plan may be considered. For example, if a plan were to include provisions to limit the use of lead ammunition, the most appropriate mechanism for doing so would be considered when the plan is implemented. Accordingly, the Regional Forester's conclusions regarding the application of rulemaking requirements to prohibitions or limitations on lead ammunition were premature. As

the record reflects, the appropriate considerations at the time of plan revision include public issues and resource management concerns related to effects of lead ammunition on condors. This analysis was done, and a reasonable determination was made that such measures were not warranted in the revised Forest Plan.

Instruction: Clarify the statements in the FEIS (pages 9, 96, 379, 380) and ROD (page 17) indicating that the Forest Service would have to use rulemaking procedures in order to limit the use of lead ammunition to indicate that other legal mechanisms could be used, if deemed necessary or appropriate, to limit the use of lead ammunition in a national forest, depending upon the scope and scale of the limitations.

Grazing capability and suitability

Issue: Appellant contends the grazing capability determination in the Forest Plan is unlawful for three reasons: (1) it lacks an informed basis that is available and understandable to the public; (2) it fails to present a rational connection between the facts found and the conclusions made; and (3) it fails to meet the requirement of 36 C.F.R. § 219.20 (1982) that the Forest Service determine capability and suitability of lands for grazing, by offering a conclusory determination without any basis in fact or disclosure of methods, in violation of NFMA and the APA. (#0177, pp. 19-21)

Another appellant also contends the analysis of grazing capability and suitability was inadequate, stating "[T]he Forest Service has decided to pretend that (a) the NFMA does not require any real analysis of capability or suitability; (2) any land allocations made are only for the purposes of a kind of thought experiment, and have no bearing on whether the land is actually grazed or not, (3) previous analysis done in the 1980's and 1990's can be used in lieu of new analysis even though that analysis was demonstrably insufficient, (4) in the cases where that analysis shows resource problems, it should be discounted because the analysis itself was not really all that good." (#0176, pp. 3-4, 8-11)

Response:

Section 219.20(a) of the 1982 rule requires that lands suitable for grazing and browsing shall be identified and their condition and trend shall be determined. Lands in less than satisfactory condition shall be identified and appropriate action planned for their restoration.

The Southwest Region developed an operational draft document in January 2010 that was prepared to provide guidance to forest plan revision teams.

New capability and suitability analyses were completed for the proposed plan. The record includes documents clearly describing the processes followed and the data considered during the capability and suitability analyses. This information is provided in understandable terms and also in the detail needed for replication.

Results from site specific NEPA analyses and other sources were used to augment data used in the new capability and suitability to determine trend and condition.

Lands in less than satisfactory condition were identified in Terrestrial Ecosystem Survey data considered during the capability analysis. Restoration of these lands would be accomplished

through plan objectives such as thinning, fire, and noxious weed treatments and implemented through site specific analysis and project-level planning.

Suitable lands are usually a subset of capable lands. Neither the FEIS nor the Forest Plan clearly articulate the relationship between the lands identified as capable and those identified as unsuitable in the capability and suitability analyses.

The record demonstrates compliance with Section 219.20(a) requirements to complete capability, suitability, and trend and condition analyses related to grazing lands. Lands in less than satisfactory condition were identified and direction provided regarding appropriate actions for restoration of those lands.

Instruction: Make an administrative correction to the Forest Plan to describe the relationship between those lands determined to be capable and those found to be unsuitable for grazing.

Management direction pertaining to Annual Operating Instructions for grazing permits

Issue: Appellant contends the relative lack of standards in the revised Plan, especially as compared to the previous Plan, is a violation of the NFMA because "[t]here is no limit to grazing, no limit to logging, no limit to road building that is not set by the agency itself on a site-specific basis…." In one specific instance, the appellant notes that standards in the previous Plan intended to protect rangeland have been replaced by a less specific guideline that annual operating instructions should address relevant resource concerns. (#0176, p. 7)

Response:

The revised plan and ROD discuss standards and guidelines as components of the revised plan decision. The revised plan defines "guidelines" and "standards," clarifying the difference between the terms and elevating the meaning of "guidelines" beyond the common dictionary definition. The revised plan and ROD explain how management direction has been presented differently from the original plan. The FEIS analyzes the original plan (Alternative A) and the revised plan (Alternative B), providing a crosswalk of the key plan component changes from the original plan in the FEIS, appendix M. See Attachment 1 for a more detailed response to the broader issue concerning the adequacy of management direction in the revised Plan.

The FEIS (pp. 101, 129, 147, 243, 358, 363, 395-397, 400, 402, 510, 512-513, 590, 636, 643, 650-651) and revised Plan (pp. 16, 70) include multiple references to annual operating instructions (AOIs) as the means to adjust grazing management in response to changing conditions or competing resource needs. National policy limits the use of AOIs to specific circumstances. In many cases they are not the proper tool for adjusting grazing management. This policy is found in Forest Service Handbook (FSH) 2209.13, Chapter 90, and the response to comments in the preamble of the final rule for 36 CFR 214 (Federal Register, Vol. 78, No. 108 (June 5, 2013), p. 33709).

There are no legal, regulatory or policy requirements to issue AOIs. They are presented in FSH 2209.13, Chapter 90 as a means to implement management changes previously analyzed and approved through a site specific NEPA decision, usually an Allotment Management Plan (AMP). In order to be incorporated into AOI direction, management changes must have previously been identified in the AMP and grazing permit(s) as part of an adaptive management

strategy. Because use of AOIs is limited to previously analyzed actions already authorized in the grazing permit(s), they are not appealable under 36 CFR 214.

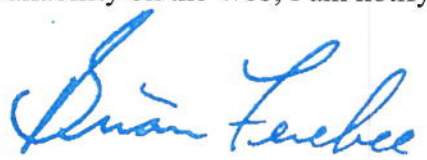
Standard grazing permit terms and conditions authorize certain short-term management changes in response to temporary changes in resource conditions. These decisions are not appealable under 36 CFR 214. They may be incorporated into AOIs or issued as separate direction to the permit holder(s).

Other management changes not previously analyzed through a site specific NEPA decision and not previously authorized through grazing permit terms and conditions cannot be directed through issuance of AOIs. If the conditions for inclusion in AOIs are not met, then the new direction must be supported by some type of new analysis (not necessarily NEPA) and must be issued as a permit modification that is appealable by the permit holder under 36 CFR 214. Decisions required by new ESA listings or other changes in legal, regulatory or policy requirements fall into this category.

Although clearly implied, actual language in the FEIS and revised Plan did not clearly articulate support by regulation and standard grazing permit terms and conditions. Nor did it clearly reference to instructions issued by the Forest Officer in charge for the area under permit.

Instructions: Modify the relevant passages in the FEIS and revised Plan to more clearly reflect national policy regarding the use of AOIs.

This appeal decision is the final administrative determination of the Department of Agriculture, unless the Secretary, on his own initiative, elects to review the decision within 15 days of receipt (Optional Appeal Procedures, Section 17(d)). By copy of this letter and notification of availability on the Web, I am notifying all parties to this appeal.



BRIAN FEREBEE
Reviewing Officer for the Chief

Enclosure: Attachment 1 – Issues Affirmed Without Instruction

cc: Appellants
Region 3 Planning
Region 3 Appeals

Kaibab National Forest Land and Resource Management Plan

Appeal Issues Affirmed Without Instruction

This attachment includes responses to those issues for which the review found full compliance with relevant law, regulation, and policy and no need to provide follow-up instructions to the responsible official. The attachment is organized along the lines of the major laws most relevant to each issue and sub-groupings according to specific requirements under those laws and, in some cases, the particular forest resource at issue.

National Environmental Policy Act (NEPA)

Range of Alternatives

- Overall Range of Alternatives

Issue: Appellant contends the Forest Service did not evaluate a sufficient range of alternatives because every alternative other than the No Action alternative have the exact same Desired Future Conditions, Objectives, Guidelines, and Standards. The appellant states that "these are the central aspects of the Plan, and the Forest Service has an obligation to consider competing ways to achieve its objectives." (#0176, pp. 7-8)

Response:

NEPA compels the agency to present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public. Agencies shall:

> (1) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated; (2) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits; (3) Include reasonable alternatives not within the jurisdiction of the lead agency; (4) Include the alternative of no action; (5) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference; (6) Include appropriate mitigation measures not already included in the proposed action or alternatives. 40 CFR 1502.14.

In addition, Forest Service Handbook (FSH) 1909.15, Chapter 10, states that no specific number of alternatives is required or prescribed. The range of alternatives includes the alternatives that were analyzed as well as those eliminated from detailed study. See FSH 1909.15, Chapter 10 and the Council on Environmental Quality's Forty Most Asked Questions about NEPA.

The FEIS included detailed evaluation of four alternatives (pp. 13-16) and described four additional alternatives that were considered, but not analyzed in detail (pp. 19-20). The Kaibab, on pp. 327-328 of the FEIS Appendix A, responds adequately to this issue by stating the following:

> The EIS evaluates a range of reasonable alternatives that were developed to address the significant issues raised. The final environmental impact statement (FEIS) chapter 1 describes the issues raised, and chapter 2 describes the alternatives developed in response to the significant issues. The desired conditions did not vary as they describe a collaboratively developed common vision. Alternatives were developed as different means to achieve those desired conditions. The issues that drove alternatives C and D resulted in modifications of the proposed action to include different guidelines, a new management area with a corresponding desired condition, additional recommended wilderness, and either reduced or no acres identified as suitable timber. Most of the comments received about the desired conditions were addressed by modifying the associated desired condition language. Examples include adding language to ponderosa pine and dry mixed conifer desired conditions that "group sizes may be larger," to cottonwood-willow that "native vegetation dominates," and that "Soils are free from anthropogenic contaminants that could alter ecosystem integrity or affect public health."

Furthermore, objectives can be derived by calculating the agency's ability (capacity) to carry out needed work. Therefore, what may appear to be arbitrary numbers, in relation to the total work needed, is in fact a rational approach to identifying realistic objectives in working towards the desired condition.

I find no violation of law, regulation, or policy.

- "No Regrets" Alternative

Issue: Appellant contends the NEPA and NFMA were violated by the failure to "explore or adequately respond" to an alternative proposed previously by the appellant. The alternative, characterized as a "no regrets strategy" by the appellant, would manage the Kaibab National Forest as a "safe harbor and refuge for fish and wildlife" and would provide a "substantial increase in protection for plant and animal species that exist on national forest lands." (#0177, pp. 3-6)

Response:

A December 13, 2010, communications described by the appellant as containing a request to consider the appellant's no-regrets alternative, is not in the planning record provided for the appeal review. The transmittal provided by the Kaibab indicates no comments were received by the Kaibab NF in December 2010 from the appellants. There is a reference to their no-regrets alternative in a July 2012 letter where they specifically ask the Forest to consider and fully analyze the impacts of an action alternative that responds to changes in global and regional climate. Their request goes on to ask: "In addition, please consider a full range of reasonable alternatives including, at the very least: (1) an alternative based on existing standards and guidelines in the existing Forest Plan, as amended, and (2) a substantially more protective alternative that considers the potential magnitude of climate change impacts to vegetation communities, fire regimes, water availability, and wildlife viability, and provides additional protection for fish and wildlife species that use or depend upon national forest lands." The review of this issue did not find more specific description of what a no-regrets alternative is, other than the consideration of climate change and the two alternatives above.

The planning record contains numerous references to climate change and its effects on management of the Kaibab NF. The FEIS, on page 20, describes consideration of an alternative that would use a hands-off approach to manage long-term vegetative health. This alternative was not analyzed in detail because it would not address the priority needs for change as described on pages 4-5 of the FEIS. Although this alternative was not characterized in exactly the same way as the alternative that had previously been proposed by the appellant, the central intent appears to be consistent with that sought by appellants.

It is apparent the Forest adequately considered the general and specific requests of the appellants by thoroughly considering the effects of climate change, providing for the consideration of multiple alternatives with various outputs and effects. Because the full range of alternatives considered includes those not analyzed in detail, and the appellant's proposed alternative fell within that range, I find there is no violation of law, regulation, or policy regarding this appeal issue.

- Grazing Alternatives

Issue: Appellant contends the range of alternatives with respect to grazing was inadequate and not in compliance with the NFMA requirements regarding alternatives. "[T]he Plan acknowledges that 'there was no difference between alternatives with respect to grazing.' The Plan also states, inexplicably, that 'grazing effects to wildlife were not specifically called out in the DEIS analysis because grazing did not emerge as an issue.'" (#0176, pp. 3-4)

Response:

Section 219.20(a) of the 1982 rule requires that lands suitable for grazing and browsing shall be identified and their condition and trend shall be determined. The present and potential supply of forage for livestock, wild and free-roaming horses and burros, and the capability of these lands to produce suitable food and cover for selected wildlife species shall be estimated. The use of forage by grazing and browsing animals will be estimated. Lands in less than satisfactory condition shall be identified and appropriate action planned for their restoration.

The Southwest Region developed an operational draft document in January 2010 that was prepared to provide guidance to forest plan revision teams. Region-specific program management direction is provided through regional supplements to the Forest Service Manuals and Handbooks. Additional management guidance is provided through regional guidebooks.

The FEIS on page 19 describes consideration of an alternative that would reduce grazing across the National Forest. The alternative was considered but not evaluated in detail because of the mechanisms available within the grazing program under all the alternatives considered in detail that would enable adaptations necessary to protect other resources and respond to changing conditions.

In reviewing the planning record I also found that data from site specific NEPA analyses, annual monitoring and allotment records were analyzed for all of the livestock grazing allotments. Additional data were collected and analyzed that addressed specific resource issues and grazing impacts (i.e. aspen decline, grasslands encroachment, wetland areas). Legal motions, vetted by the Department of Justice (DOJ), to verify the existence of supporting documentation, are also included in the planning record.

The FEIS and the associated planning record include documentation demonstrating that impacts and issues related to rangeland condition and livestock grazing were analyzed in sufficient detail across the alternatives considered in detail. Therefore, I find no violation of law, regulation or policy with respect to consideration of grazing in the range of alternatives.

Environmental Consequences

- Hard Look

Issue: Appellant contends NEPA requires the Forest Service to take a "hard look" at the effects of its actions. This requirement applies to its analysis of the affected environment as well, because it is impossible to determine effects if the agency does not know the current conditions of the landscape. Moreover, NFMA requires a thorough cataloging of the landscape's challenges and conditions. The Forest Service has fallen far short of the mark in this respect. (#0176, pp. 4-5)

The appellant describes several examples illustrating this contention, including:

- Deferring aspen "strategies" to the future
- Setting an objective to fence just 20 acres per year of aspen from ungulates (out of many hundreds of acres of aspen that are in grazed areas) is arbitrary without specific disclosure of the extent of ungulate grazing as a contributor to the poor state of aspen.
- A statement in the Plan that grassland encroachment is "exacerbated by recent increases in erosion and nonnative species," but then revealing nothing about where this is occurring, how much it is occurring, or what the plan is to arrest these increases.
- Setting an objective of restoring six acres of wetlands in five years is arbitrary without disclosing how many degraded acres exist.
- Setting an objective of restoring ten springs in five years is arbitrary without disclosing the total number of natural springs.
- Failing to reveal the poor state of knowledge of the grazed rangelands

Response:

The 1982 planning rule defines an objective as "A concise, time-specific statement of measurable planned results that respond to pre-established goals. An objective forms the basis for further planning to define the precise steps to be taken and the resources to be used in achieving identified goals." The revised Plan describes the purpose and definition of plan components, including objectives, and notes that they were developed "collaboratively with input from a variety of external and internal stakeholders with broad interdisciplinary representation." (revised Plan, p. 5) The FEIS explains on page 25 that one of the assumptions applied in developing and analyzing alternatives is that funding levels will be similar to the past 5 years. Therefore, it should be expected that objectives are appropriately constrained by the expected funding. As a case in point, the FEIS Appendix A includes a public comment that the objective for protection of springs and wetlands should be more aggressive, to which the response states, "These objectives were based on levels of implementation within the capacity of

the Kaibab NF." (FEIS Appendix A, p. 366) The response also notes that objectives can be exceeded if resources (i.e. funding) become available.

The revised Plan explains that to implement the revised Plan, site-specific management needs are developed locally with input from experts and stakeholders and consideration of the most current and relevant information. (revised Plan, p. 9) These needs are in turn used to develop project proposals.

The current condition and trend for aspen forest is presented on page 32 of the FEIS. Aspen restoration objectives are presented on page 29 of the revised Plan:

> To protect, enhance, and expand regenerating aspen stands that are considered to be of particularly high ecological and socioeconomic conservation value:
>
> • Fence 200 acres of aspen within 10 years of Plan approval to exclude ungulates.
> • Reduce conifer encroachment on 800 acres of aspen within 10 years of Plan approval.

The deferred strategies the appellant is apparently referring to the management approach for aspen management described on page 29 of the revised Plan, which entails collaborating with the Arizona Department of Fish and Game and other stakeholders to develop protocols and strategies tied to the restoration of aspen on the Kaibab. Such an approach does not constitute a deferred action, but is rather a means of developing specific approaches and methodologies for implementing the objectives for restoration of aspen.

The current condition of grasslands on the Kaibab is presented in the FEIS on pages 32-33. In part, this disclosure explains, "The montane/subalpine grasslands on the North Kaibab Ranger District are long and narrow. As a result of their shape, encroachment from the edges is of particular concern, as they could transition from grassland to forested area at a rapid rate." Such assessments are appropriate for a programmatic-level analysis. Grassland restoration objectives are presented on page 36 of the revised Plan:

> To restore the extent and quality of grasslands and grassland habitat:
>
> • Reduce tree density to less than 10 percent on 5,000 to 10,000 acres of historic grasslands annually.
> • Modify fences and/or install crossings to facilitate pronghorn movement on 50 miles of fence within 10 years of plan approval.

Similar to what was done for aspen, as noted above, the management approach for grasslands describes mapping, prioritization, and public education as components of a restoration implementation strategy. (revised Plan, p. 36)

The current extent of wetlands on the Kaibab is described in the FEIS on page 184. A more complete description of the nature, extent, and location of wetlands is presented in the revised Plan on page 41. Tree encroachment and high tree density are given as factors that can lower the water table and reduce water flows, thereby impacting wetlands. An objective for wetlands is found on the same page:

> Restore native vegetation and natural water flow patterns on at least 6 acres of wetlands within 5 years of plan approval.

Setting this objective as "at least" indicates an intent to treat more acres if possible.

Section 219.20(a) of the 1982 rule requires that lands suitable for grazing and browsing shall be identified and their condition and trend shall be determined. The present and potential supply of forage for livestock, wild and free-roaming horses and burros, and the capability of these lands to produce suitable food and cover for selected wildlife species shall be estimated. The use of forage by grazing and browsing animals will be estimated. Lands in less than satisfactory condition shall be identified and appropriate action planned for their restoration.

The Southwest Region developed an operational draft document in January 2010 that was prepared to provide guidance to forest plan revision teams. Region specific program management direction is provided through regional supplements to the Forest Service Manuals and Handbooks. Southwest Region guidance specific to rangeland and livestock management is included in the record.

Data from site specific NEPA analyses, and annual monitoring and allotment records were analyzed for all of the livestock grazing allotments. Additional data were collected and analyzed that addressed specific resource issues and grazing impacts (i.e. aspen decline, grasslands encroachment, wetland areas).

The FEIS, revised Plan, and the associated project record provide an assessment of the affected environment for aspen, grasslands, wetlands, and springs that is appropriate to a programmatic-scale analysis. The record also includes documentation to indicate that impacts and issues related to rangeland condition and livestock grazing were analyzed in sufficient detail.

I find no violation of law, regulation or policy.

- Best Science

Issue: Appellant contends the revised Plan calls for new fencing to be 18 inches from the ground, even though the best available science states 20 inches are needed for antelope; includes no reason for the departure from Arizona Game and Fish Department (AGFD) recommendations; and provides no analysis of the effects of this change upon antelope. (#0176, p. 5)

Response:

The Arizona Statewide Pronghorn Management Plan includes an issue statement that specifically addresses fences: "Pronghorn traverse fences by passing under, rather than over the fence; woven wire or fences with bottom wires below 20 inches act as barriers to pronghorn movements." (p. 7) However, the Wildlife Compatible Fencing document by AGFD states, "The Department's recommended maximum height is 42 inches and the bottom should be smooth wire 18 to 20 inches off the ground to allow pronghorn and deer fawns to go under." (p.12) These documents together constitute the best available science regarding fencing to accommodate pronghorn movement in Arizona.

The revised Plan (p. 69) includes a Forestwide guideline for livestock grazing that specifies "New construction and reconstruction of fences should have a barbless bottom wire and be at least 18 inches high."

The FEIS Appendix A, Response to Comments (p. 400) states, "While the Kaibab NF works closely with the AGFD to meet the needs of pronghorn antelope, the AGFD does not set forest policy. The livestock grazing guideline in the plan says that 'new construction and reconstruction of fences should have a barbless bottom wire that is at least 18 inches high.' Where needed, the bottom wire may be higher and goat bars are sometimes installed to facilitate pronghorn passage, particularly in areas that pronghorn are known to use. Fences are designed to keep livestock within a pasture or allotment. When the bottom wire is at least 18 inches, there are many places where the fence is 20 inches above the ground due to uneven ground conditions."

I find the guideline for construction and reconstruction of livestock fences is consistent with the recommendations of the AGFD and therefore reflects the best available science. Consequently I find no violation of law, regulation, or policy.

- Threatened and Endangered Species

Issue: Appellant contends the agency violated NEPA by failing to address or acknowledge the problem raised by the Fish and Wildlife Service (FWS) in a 1996 Biological Opinion (BO) regarding potential jeopardy and adverse modification resulting from a lack of enforceable standards in the Forest Plan.

More specifically, the appellant contends the FEIS violates NEPA by failing to disclose the adverse environmental consequences of eliminating standards and guidelines for Mexican spotted owl (MSO) that were in the 1988 Kaibab Forest Plan. The appellant believes that the absence of this direction could result in adverse effects to threatened and endangered species, as well as their habitat. (#0177, pp. 12-14)

Response:

The 1982 planning rule, section 219.27, provides the minimum specific management requirements to be met in accomplishing goals and objectives for the National Forest System. Forest Service Manual (FSM) 1920 zero codes, 1923, 1924, and 1926 provide additional USFS policy for the 1982 rule.

Section 219.3 of the 1982 rule defines management direction, goal, and objective as follows:

> Management direction: A statement of multiple-use and other goals and objectives, the associated management prescriptions, and standards and guidelines for attaining them.
>
> Goal: A concise statement that describes a desired condition to be achieved sometime in the future. It is normally expressed in broad, general terms and is timeless in that it has no specific date by which it is to be completed. Goal statements form the principal basis from which objectives are developed.
>
> Objective: A concise, time-specific statement of measurable planned results that respond to pre-established goals. An objective forms the basis for further planning to define the precise steps to be taken and the resources to be used in achieving identified goals.

The terms "standard" and "guideline" are not defined in NFMA or the 1982 rule. However, these terms may be further defined in a plan, in which case the definitions stated in the plan applies.

Section 219.12(g) of the 1982 planning rule directs that the physical, biological, economic, and social effects of implementing each alternative considered in detail shall be estimated and compared according to NEPA procedures. These effects include those described in NEPA procedures at 40 CFR 1502.14 and 1502.16.

Under the Endangered Species Act, section 7(a)(2) requires that

> Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency (hereinafter in this section referred to as an "agency action") is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with affected States, to be critical, unless such agency has been granted an exemption for such action by the Committee pursuant to subsection (h) of this section. In fulfilling the requirements of this paragraph each agency shall use the best scientific and commercial data available.

Chapter 2 of the revised Plan provides the forest-wide standards and guidelines, and Chapter 3 provides standards and guidelines for management areas (including designated areas).

The revised Plan defines guidelines and standards in Chapter 1 (p. 5) and the glossary (pp. 150 and 157) as follows:

> Guidelines are technical design criteria or constraints on project and activity decision making that help to make progress toward desired conditions. A guideline allows for departure from its terms, so long as the intent of the guideline is met. Deviation from a guideline must be specified in the decision document with the supporting rationale. When deviation from a guideline does not meet the original intent, a plan amendment is required.
>
> Standards are technical design constraints that must be followed when an action is being taken to make progress toward desired conditions. Standards differ from guidelines in that standards do not allow for any deviation without a plan amendment.

Chapter 1 of the revised Plan explains on page 4 that some content from the original Plan "was not retained because it reiterated existing law, regulation and policy; did not reflect current scientific information; was outside of management control; or due to change conditions on and around the Kaibab NF."

The FEIS, Chapter 3, Affected Environment and Environmental Consequences, pp. 25-284, describes the effects to wildlife and habitats based on the Forestwide Desired Future Condition and Strategies (revised Plan, p. 11) for all forest resources (e.g., ponderosa pine forest, Mexican spotted owl, caves, natural waters). Also, the FEIS on pp. 87-116, describes the affected environment and environmental consequences for wildlife and MSO including their habitats (Table 17). The wildlife viability analysis, the environmental consequences section, and biological assessment provide the analysis for FWS to make its Endangered Species Act determination and for the Kaibab NF to develop Mexican spotted owl conservation measures (2013 FWS Biological Opinion (BO), p. 17 and FEIS, p. 93).

The 2013 Biological Assessment (BA) for the revised Plan, on pages 53-88, describes the environmental consequences at the fine-, mid-, and landscape-scales for MSO and critical habitat through desired conditions, guidelines, and limited standards. On page 57, it displays the Crosswalk between 2012 Recovery Plan and Proposed Plan. The BA describes consistency between, and limitations of, the revised Plan and 2012 MSO Recovery Plan, particularly how the revised Plan addresses the key habitat variables for MSO nesting/roosting/foraging/non-breeding habitats for PACs (protected activity centers) and its recovery. The BA, at Table 12, p. 73, also displays the threats to MSO (2012 Recovery Plan) and how the plan alleviates or eliminates the threats due to proposed actions and management activities.

The September 2013 FWS Biological Opinion (BO) concluded that "implementation of the proposed LRMP for the KNF (Kaibab National Forest) will not jeopardize the continued existence of the Mexican spotted owl and will not destroy or adversely modify designated critical habitat for the species" based on the following considerations:

- The proposed LRMP will strive to implement the Recovery Plan (USDI FWS 2012) and manage for Mexican spotted owl recovery on the KNF.
- Desired conditions and guidelines in the proposed LMRP recognize the need to reduce the potential for landscape level, stand-replacing fire in ponderosa pine and mixed conifer forests that the Mexican spotted owl occupies. These efforts to improve forest condition and sustainability should reduce the risk of another Warm Fire-like event occurring on the KNF.
- Based on the discussion provided in the Effects to Mexican Spotted Owl Critical Habitat section above, the four critical habitat units (CHUs) (CP-10, UGM-13, UGM-15, UGM-17) affected by the proposed LRMP will continue to serve the function and conservation role of critical habitat for the Mexican spotted owl.

(2013 BO for the Kaibab National Forest Plan, p. 39)

The FEIS for the revised Plan addresses in several places the concerns reflected in this appeal issue.

The FEIS, Appendix A, pp. 333-334, provides responses to comments regarding changes in standards and guidelines between the previous and revised Plans, explaining that Appendix M was added in the final revised Plan, along with the short section in Chapter 1 to better address standards and guidelines in the revised Plan. FEIS, Appendix A states on page 333, "Even with many of the standards and guidelines removed or reframed for these reasons, the revised plan still contains over 180 guidelines and 20 standards."

On page 379, the FEIS Appendix A addresses concerns and comments related to the 1996 Biological Opinion for the 1996 Record of Decision. The response explains, "The no jeopardy call for the 1996 Record of Decision was based on the original forest plan, as amended. The USFWS has reviewed the revised plan and issued a new biological opinion (September 10, 2013) that reflects the provisions in the revised forest plan, the revised recovery plan for the Mexican spotted owl (MSO) (FWS 2012), and new information that has become available during the past 15 years. A no jeopardy call was issued in the new biological opinion."

On page 382, the FEIS Appendix A addresses concerns and comments regarding how recovery plans, specifically MSO Recovery Plans, are incorporated into the plan and the assertion that

standards and guidelines related to the Mexican spotted owl were removed and replaced with a reference to the recovery plan. The response provides the following explanation:

> The Kaibab NF follows the intent of Mexican Spotted Owl Recovery Plan and the provisions in the Endangered Species Act. The revised forest plan does not reiterate law, regulation, or policy, but instead points to it. This enables the plan to remain current by incorporating higher level policy by reference. Additionally, the Kaibab NF consults with the USFWS on the forest plan as well as on site-specific projects that may affect the Mexican spotted owl or its habitat. Project design and site-specific mitigation measures are developed to provide for the owl to prevent jeopardy.

The FEIS, Appendix M, pages 577-654, provides a crosswalk for key standards and guidelines from the original Plan (as amended) compared to the revised Plan. On page 577 it states, "The intent of this appendix is to provide greater transparency on how existing plan direction (e.g., standard and guidelines) was incorporated into the revised plan…. The revised plan is strategic in nature, as such; many of the standards and guidelines in the revised pan were reframed as desired conditions or guidelines. In other instances, existing plan guidance was modified or removed because it reiterated other law, regulation, or policy." Appendix M heavily references the 2012 MSO Recovery Plan to show how the revised Plan intends to meet its ESA requirements.

Finally, the Record of Decision (ROD), on pages 10 and 11, discusses standards and guidelines as components of the decision, and addresses the public concerns regarding the lack of standards and guidelines that were included in the original plan on page 17. The ROD states, "Some were retained, some were converted to desired conditions, and some were dropped because they reiterated higher-level policy or were not supported by science. Additionally, the FEIS analyzes the original plan as Alternative A and compared it to the other alternatives."

In summary, the review of the planning record shows the Regional Forester used his discretion to define terms and clarify how plan components are presented in the revised Plan. The disclosure of environmental consequences in the FEIS for the revised Plan is consistent with the 1982 planning rule and NEPA procedures, not only for MSO but also for other wildlife species and habitats. The FEIS also provides sufficient analysis to meet the ESA requirements, addresses key habitat variables and threats for MSO per the 2012 MSO Recovery Plan, and responds to the appellant comments regarding this issue during past comment periods. In the 2013 FWS Biological Opinion (p. 39), the FWS determined that the proposed Plan meets the ESA section 7(a)(2) requirements, and that " implementation of the proposed LRMP for the KNF (Kaibab National Forest) will not jeopardize the continued existence of the Mexican spotted owl and will not destroy or adversely modify designated critical habitat…."

I therefore find no violation of law, regulation, or policy with respect to this appeal issue.

- Effects of Grazing to Pronghorn Habitat

Issue: Appellant contends the revised Plan's statement that livestock grazing allotments on the Kaibab are not and will not be grazed at levels that limit pronghorn populations is without basis because guidelines intended to provide cover for fawning will be ineffective. The appellant also disagrees with the statement that because "grazing utilization is set for all allotments at the conservative level of 30 to 40 percent" pronghorn will not be affected stating that forage will be

grazed much more heavily than that because the use is averaged over large areas. (#0176, pp. 10-11)

Response:

Section 219.20 of the 1982 planning regulations states the following:

> In forest planning, the suitability and potential capability of National Forest System lands for producing forage for grazing animals and for providing habitat for management indicator species shall be determined as provided in paragraphs (a) and (b) of this section. Lands so identified shall be managed in accordance with direction established in forest plans.
>
> (a) Lands suitable for grazing and browsing shall be identified and their condition and trend shall be determined. The present and potential supply of forage for livestock, wild and free-roaming horses and burros, and the capability of these lands to produce suitable food and cover for selected wildlife species shall be estimated. The use of forage by grazing and browsing animals will be estimated. Lands in less than satisfactory condition shall be identified and appropriate action planned for their restoration.

The revised Plan includes the desired conditions for all grasslands, objectives for livestock grazing, and the management approach for grasslands. (pp. 35-36) The desired conditions for all grasslands describe that in pronghorn habitat, understory vegetation provides cover for fawning. (p. 35) The revised Plan objectives for livestock grazing state that annual operating instructions for livestock grazing permittees should ensure livestock numbers are balanced with capacity and address any relevant resource concerns (e.g., forage production, weeds, fawning habitat, soils, etc.) and make adjustments as appropriate.

The revised Plan management approach for grasslands states that species-specific wildlife needs are addressed on a site-specific basis and considered during project level planning and implementation. (p. 36) For example, where they occur, pronghorn typically benefit from grasses and shrubs greater than 11 inches in height to provide fawns protection from predators during the fawning season. This habitat consideration is, however, dependent in large part on weather. Optimal fawning habitat conditions may not always be achievable due to variable environmental conditions (e.g., winter snow fall and spring precipitation). Project specialists work together to determine achievable conditions that would optimize for wildlife habitat at the site level, and give consideration to follow up monitoring that could assess how well such conditions have been met.

The best available science for pronghorn management is in the Arizona Statewide Pronghorn Management Plan authored by the Arizona Game and Fish Department. This Management Plan states that fawning cover is generally provided by herbaceous vegetation that is greater than 11 inches in height, with little shrub cover (p. 8). The revised Plan's management approach for grasslands echoes this guidance.

The FEIS Appendix A Response to Comments (p. 396) states the following:

> Livestock grazing is managed through adaptive management and adjustments are made continuously, as resource concerns are identified. To provide protection for wildlife, a guideline states "Annual operating instructions for livestock grazing permittees should

> ensure livestock numbers are balanced with capacity and address any relevant resource concerns (e.g., forage production, soils, weeds, fawning habitat, and other wildlife needs)." This guideline is in addition to livestock grazing manual and handbook policy and direction.

Grazing utilization is set for all allotments at the conservative level of 30 to 40 percent, leaving at least 60 percent of the forage. The NEPA analysis process for each allotment since 1992 has analyzed the effects of livestock grazing on pronghorn. Each year, livestock numbers are set in each allotment so livestock numbers are matched with annual forage production.

The management direction in the revised Plan intended to assure adequate cover for pronghorn on grazing allotments is consistent with the best available science and with the requirements of the 1982 planning regulations. I find no violation of law, regulation, or policy.

National Forest Management Act (NFMA)

Management Direction

- The Relative Lack of Standards in the Revised Plan

Issue: Appellant contends every standard or guideline that formerly restricted some action has been eradicated from the new Plan, and every new standard or guideline is either meaningless or toothless or, very often, both. "There is no limit to grazing, no limit to logging, no limit to road building that is not set by the agency itself on a site-specific basis, and the Plan leaves a member of the public no power to challenge those decisions because all standards and guidelines are qualified and contain discretionary language." (#0176, p. 4)

Response:

The Land and Resource Management Plan for the Kaibab National Forest (revised Plan) was revised pursuant to the 1982 planning regulations, as allowed by the transition wording of the current regulations, 36 Code of Federal Regulations (CFR) 219.17(b)(3). The 1982 rule, section 219.27, provides the minimum specific management requirements to be met in accomplishing goals and objectives for the National Forest System. Included among those minimum management requirements is the requirement to "Provide for adequate fish and wildlife habitat to maintain viable populations of existing native vertebrate species and provide that habitat for species chosen under Sec. 219.19 is maintained and improved to the degree consistent with multiple-use objectives established in the plan." (36 CFR 219.27(a)(6))

Section 219.3 of the 1982 rule defines management direction, goal, and objective as:

> Management direction: A statement of multiple-use and other goals and objectives, the associated management prescriptions, and standards and guidelines for attaining them.
>
> Goal: A concise statement that describes a desired condition to be achieved sometime in the future. It is normally expressed in broad, general terms and is timeless in that it has no specific date by which it is to be completed. Goal statements form the principal basis from which objectives are developed.

> Objective: A concise, time-specific statement of measurable planned results that respond to pre-established goals. An objective forms the basis for further planning to define the precise steps to be taken and the resources to be used in achieving identified goals.

The terms "standard" and "guideline" are not defined in NFMA or the 1982 rule. However, these terms may be further defined in a plan, in which case the definitions stated in the plan applies.

Section 219.15 of the 1982 rule addresses vegetation management practices:

> When vegetation is altered by management, the methods, timing, and intensity of the practices determine the level of benefits that can be obtained from the affected resources. The vegetation management practices chosen for each vegetation type and circumstance shall be defined in the forest plan with applicable standards and guidelines and the reasons for the choices. Where more than one vegetation management practice will be used in a vegetation type, the conditions under which each will be used shall be based upon thorough reviews of technical and scientific literature and practical experience, with appropriate evaluation of this knowledge for relevance to the specific vegetation and site conditions. On National Forest System land, the vegetation management practice chosen shall comply with the management requirements in Sec. 219.27(b).

Section 219.19 of the 1982 rule addresses fish and wildlife resources:

> Fish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area. For planning purposes, a viable population shall be regarded as one which has the estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area. In order to insure that viable populations will be maintained, habitat must be provided to support, at least, a minimum number of reproductive individuals and that habitat must be well distributed so that those individuals can interact with others in the planning area.
>
> (a) Each alternative shall establish objectives for the maintenance and improvement of habitat for management indicator species selected under paragraph (g)(1) of this section, to the degree consistent with overall multiple use objectives of the alternative. To meet this goal, management planning for the fish and wildlife resource shall meet the requirements set forth in paragraphs (a)(1) through (a)(7) of this section.

The Forest Service Manual (FSM) provides policy to manage threatened, endangered, and sensitive species (FSM 2670.3) and establishes planning objectives for federally listed species and Forest Service sensitive species (FSM 2672.3). The objectives of biological documents are 1) to ensure that Forest Service actions do not contribute to loss of viability of any native or desired non-native plant or contribute to animal species or trends toward Federal listing of any species; 2) to comply with the requirements of the Endangered Species Act that actions of Federal agencies not jeopardize or adversely modify critical habitat of Federally listed species; and 3) to provide a process and standard by which to ensure that threatened, endangered, proposed, and sensitive species receive full consideration in the decision-making process (FSM 2672.41).

The revised Plan, Final EIS (FEIS), FEIS Appendices, and several additional documents clarify the role of standards and guidelines in the revised Plan and provide extensive rationale to support

the decision to integrate the previous management direction into a combination of desired conditions and guidelines based on the best available scientific information.

Chapter 1 of the revised Plan explains on page 4 that some content from the 1988 Plan "was not retained because it reiterated existing law, regulation and policy; did not reflect current scientific information; was outside of management control; or due to change conditions on and around the Kaibab NF."

The Record of Decision (ROD, p. 10) describes guidelines as "requirements that must be followed unless a different management action demonstrably achieves the same intent as the guideline" and the revised Plan further defines guidelines in Chapter 1 (p. 5) and the glossary (p. 150) as follows:

> Guidelines are technical design criteria or constraints on project and activity decision making that help to make progress toward desired conditions. A guideline allows for departure from its terms, so long as the intent of the guideline is met. Deviation from a guideline must be specified in the decision document with the supporting rationale. When deviation from a guideline does not meet the original intent, a plan amendment is required.

The FEIS Appendix M, (pp. 577-654) provides a crosswalk for key standards and guidelines from the original Plan (as amended) compared to the revised Plan. On page 577 it states, "The intent of this appendix is to provide greater transparency on how existing plan direction (e.g., standard and guidelines) was incorporated into the revised plan…. The revised plan is strategic in nature, as such; many of the standards and guidelines in the revised pan were reframed as desired conditions or guidelines. In other instances, existing plan guidance was modified or removed because it reiterated other law, regulation, or policy."

The FEIS, Appendix A, (pp. 333-334) provides responses to comments regarding standards and guidelines, explaining that Appendix M was added in the final revised Plan, along with the short section in Chapter 1 to better address standards and guidelines in the revised Plan. The FEIS Appendix A states on page 333, "Even with many of the standards and guidelines removed or reframed for these reasons, the revised plan still contains over 180 guidelines and 20 standards."

The Record of Decision (ROD) discusses standards and guidelines as components of the decision on pages 10 and 11, and addresses the public concerns regarding the lack of needed standards and guidelines that were included in the original Plan on page 17. It states, "Some were retained, some were converted to desired conditions, and some were dropped because they reiterated higher-level policy or were not supported by science. Additionally, the FEIS analyzes the original plan as Alternative A and compared it to the other alternatives."

The revised Plan defines the reasons for the management practices for each vegetation type based on the purpose and need to attain desired future conditions. In Chapter 2, pp. 11-83, the objectives, desired conditions, standards, guidelines, and management approaches for all vegetation and resource types (i.e. ponderosa pine, mixed conifer, aspen, caves, natural waters) on the Forest for each management activity are described. Chapter 4 of the revised Plan, pp. 109-122, describes the suitability and capability of the timber, grazing, minerals, energy, and recreation management activities.

The FEIS, Chapter 3, p. 25, describes the current environmental conditions and the environmental consequences of management activities by alternative. In the FEIS, Chapter 3, there are both qualitative and quantitative measures that describe how the management activities will meet the Plan's goals and objectives. For example, the objective described in Alternative B for aspen protection and regeneration is to "fence 200 acres of aspen and reduce conifer encroachment on 800 acres of aspen within 10 years of plan approval" (FEIS, p. 53). This effort would be emphasized on the Williams and Tusayan Ranger District, specifying the management area of need on the Forest. Page 29 of the revised Plan establishes guidelines and management approaches to "restore and sustain aspen (habitat) and the associated understory native plant communities and wildlife (in coordination with Arizona GFD)."

The FEIS, Chapter 3, Environmental Consequences section describes qualitative and quantitative elements of the ponderosa pine (PP) forest desired condition. The PP desired condition, objectives, and guidelines "would reduce threats to species from habitat loss and would provide long-term viability for the species that depend on the following elements (including Mexican spotted owl)." (FEIS, p. 105)

As an example, the PP desired condition (FEIS, p. 105) is described as "Fine Scale: Crowns of trees within the mid-aged to old groups are interlocking or nearly interlocking [qualitative] and consist of approximately 2 to 40 trees per group [quantitative]. Gambel oak mast (acorns) provides food for wildlife species. Where Gambel oak comprises more than 10 percent of the basal area [quantitative], it is not uncommon for canopy cover to be greater than 40 percent [quantitative]."

The revised Plan, Monitoring and Evaluation section (pp. 123-144), describes the periodic evaluation of the effects to species and their habitats for the Plan's management activities. As an example of monitoring and evaluation, the revised Plan describes conservation measures to monitor Mexican spotted owls and their habitats and plans to "conduct(s) fuels projects which may benefit the Mexican spotted owl in the future." In addition, the FEIS (p. 93) and 2013 FWS Biological Opinion (BO) (p. 17) explain that "The KNF will continue to work with the FWS to establish PACs (protected activity centers) for Mexican spotted owls using criteria set forth in the Recovery Plan. In addition, the KNF will continue to monitor PACs and provide FWS with monitoring and project survey results annually."

In order to provide for "diversity of plant and animal communities and tree species consistent with the overall multiple-use objectives of the planning area" (1982 rule, section 219.26), the Kaibab NF completed the 2008 Species Diversity Report (KNF 2008d) and 2013 Wildlife Species Report and Biological Evaluation. "The species viability analysis (2013 Wildlife Species Report and BE) for wildlife and botany were conducted using the same process. It was initiated by compiling a comprehensive list of "forest planning species" with potential viability concerns for the Kaibab NF. This list was used to help develop desired conditions, standards, and guidelines for the revised forest plan. Forest planning species were identified only for forest plan revision purposes, and they hold no special regulatory status beyond existing State and Federal status. Further detail on this process and explicit criteria used to identify forest planning species is explained in the Species Diversity Report, v. 1.2.5 (KNF 2008d)." (FEIS, p. 65)

In providing for diverse plant and animal communities, the revised Plan also analyzed plant and animals with limited distributions and endemic populations. In the FEIS, p. 88, "Table 16 shows the species that have either a restricted distribution or are considered a narrow endemic as determined in the Species Diversity Report, v. 1.2.5 (KNF 2008d)."

The revised Plan describes detailed Desired Conditions at multiple spatial scales for ponderosa pine (pp. 17-19) and mixed conifer forests (pp. 21-23) and these desired conditions were developed to incorporate the standards, guidelines, and other direction in the 1988 Plan as amended to include the 1996 FSM Supplement for northern goshawk as described in FEIS Appendix M (pp. 593-616). The revised Plan also contains several standards and numerous guidelines for vegetation management in all forested communities (pp. 30-31). Included among these are standards and guidelines that carry forward the intent of some of the previous management direction for northern goshawks. Specifically, there are standards limiting the size of forest openings created from vegetation management and specifying that clearcutting shall be used only when it is the optimum harvesting method for achieving desired conditions. The guidelines include provisions "generally not remove" trees previously identified in the 1998 Plan (as amended) to be important to northern goshawk and other wildlife. Included among these are large, old ponderosa pine, mature trees with dwarf mistletoe, large snags, and gambel oaks greater than 8 inches diameter (revised Plan, p. 30). Guidelines for wildlife include protection of goshawk nest sites and post-fledging areas (PFAs) (revised Plan, p. 52). Appendix C of the Wildlife Specialist Report also includes a crosswalk describing how the revised Plan direction meets specific needs for various wildlife species, including northern goshawk (pp. 113-147).

Several analysis approaches were used to model the effects of different management alternatives and disturbance scenarios on vegetation and wildlife habitat. These are described in detail in the FEIS Appendix B (Methodologies and Analysis Process) and supporting documents (e.g., Wildlife Specialist Report, Vegetation and Fire Specialist Report) and include the use of the Vegetation Development Dynamics Tool (VDDT), Forest Vegetation Simulator (FVS) and a state and transition model that estimates acres of Potential Natural Vegetation Types (PNVT) under different management alternatives and disturbance scenarios (FEIS Appendices, p. 421). These models do not attempt to model all aspects of northern goshawk habitat or habitat for all wildlife species; rather "Potential natural vegetation types (PNVTs) represent the vegetation type and characteristics that would occur when natural disturbance regimes and biological processes prevail (Schussman et al. 2006)" (Wildlife Specialist Report, page 5). Chapter 3 of the FEIS (Affected Environment and Environmental Consequences) summarizes the analysis approach as applied to wildlife habitat (pp. 65-68) and species risk is summarized in Table 15 (pp. 86-87). FEIS Appendix J describes the use of best available science for wildlife (pp. 549-555). There is not a comparable Appendix describing the use of best available science for the development of desired conditions for forested communities. Rather, these references are included in various sections of the FEIS and its Appendices (e.g., p. 338).

The revised Plan, the Final Environmental Impact Statement (FEIS) and its Appendices, along with several specialist reports (e.g., Wildlife Specialist Report, Botany Specialist Report, and Vegetation and Fire Specialists Report) describe the plan components needed to meet species viability requirements. These documents also describe the analysis approach and results for assessing viability and the conceptual monitoring approach to assure species viability is met.

The revised Plan, Monitoring and Evaluation section (pp. 123-144) describes the periodic evaluation of the effects to species and their habitats for the Plan's management activities. As an example of monitoring and evaluation, the revised Plan describes conservation measures to monitor Mexican spotted owls and their habitats and plans to "conduct(s) fuels projects which may benefit the Mexican spotted owl in the future." In addition, the FEIS (p. 93) and 2013 FWS BO (p. 17) explain that "The KNF will continue to work with the FWS to establish PACs (protected activity centers) for Mexican spotted owls using criteria set forth in the Recovery Plan. In addition, the KNF will continue to monitor PACs and provide FWS with monitoring and

project survey results annually." Selection of MIS is described in detail in FEIS Appendix I, and monitoring approaches for the selected MIS are described in the revised Plan (pp. 136 and 143).

In summary, the review of the planning record shows the revised Plan makes appropriate application of management direction, clearly explaining the transition from the previous Plan and how the plan components (desired conditions, objectives, standards, and guidelines) are to be applied under the revised Plan. Further, the revised Plan, FEIS, and FEIS Appendices provide adequate information regarding assessing species viability and meeting the viability provision of the 1982 planning regulations and associated policy. The analysis approach and results for species viability are described in the FEIS (Appendix B and Chapter 3) and supporting documents (e.g., Wildlife Specialist Report, Botany Specialist Report, Vegetation and Fire Specialist Report). These documents compare alternatives, disclose assumptions, and highlight Alternative B (the selected Alternative) as generally being most effective for providing wildlife habitat requirements and thus species viability. The vegetation management standards and guidelines for forested communities and the guidelines for wildlife accommodate the key provisions of the 1992 Management Recommendations for Northern Goshawks, and the overall management approach provides long-term benefits for wildlife by reducing potential impacts of uncharacteristically severe wildlife through restoration of ecosystem structure and function.

I find no violation of law, regulation, or policy with respect to this appeal issue.

- Effect to Species Viability From Changes in Management Direction

Issue: Appellant contends the removal of standards and guidelines that were in the 1988 Kaibab Forest Plan, particularly those that quantified structural attributes of habitat, will result in effects to the viability of northern goshawk and 14 vertebrate prey species. Additionally, the appellant contends Forestwide desired conditions for ponderosa pine forest could result in significantly less old forest structure and canopy cover in goshawk nest, family and forage areas than was established by the habitat-proxy analysis of prior impact statements ensuring viability. (#0177, pp. 17-19)

Response:

The Land and Resource Management Plan for the Kaibab was revised pursuant to the 1982 planning regulations, as allowed by the transition wording of the current regulations, 36 Code of Federal Regulations (CFR) 219.17(b)(3). Section 219.27 of those regulations provides the minimum specific management requirements to be met in accomplishing goals and objectives for the National Forest System. Forest Service Manual (FSM) 1920 zero codes, 1923, 1924, and 1926 provide additional USFS policy for the 1982 rule.

The 1982 planning regulations (36 CFR 219.19) establish the following requirements for fish and wildlife resources:

> Fish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area. For planning purposes, a viable population shall be regarded as one which has the estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area. In order to insure that viable populations will be maintained, habitat must be provided to support, at least, a minimum number of

> reproductive individuals and that habitat must be well distributed so that those individuals can interact with others in the planning area.

The regulation further states at 219.19(a),

> Each alternative shall establish objectives for the maintenance and improvement of habitat for management indicator species selected under paragraph (g)(1) of this section, to the degree consistent with overall multiple use objectives of the alternative. To meet this goal, management planning for the fish and wildlife resource shall meet the requirements set forth in paragraphs (a)(1) through (a)(7) of this section.

The Forest Service Manual (FSM) provides policy for threatened, endangered, and sensitive species (FSM 2670) and establishes planning objectives for federally listed species and Forest Service sensitive species (FSM 2672.3). The objectives of biological documents are 1) to ensure that Forest Service actions do not contribute to loss of viability of any native or desired non-native plant or contribute to animal species or trends toward Federal listing of any species; 2) to comply with the requirements of the Endangered Species Act that actions of Federal agencies not jeopardize or adversely modify critical habitat of Federally listed species; and 3) to provide a process and standard by which to ensure that threatened, endangered, proposed, and sensitive species receive full consideration in the decision-making process. (FSM 2672.41)

The Southwestern Region Supplement No. 2600-96-1 to the Forest Service Manual establishes Regional policy regarding management of northern goshawk effective July 10, 1996 until superseded or removed. Under this supplement, FSM 2676.3:

> [M]oves specific direction regarding management of northern goshawk from regional supplementation to forest plans of the Southwest Region. This change implements, in part, a decision made June 5, 1996, documented in Record of Decision for Amendment of Forest Plans – Arizona and New Mexico. Forest plan direction still follows the 1992 published Goshawk Scientific Committee Recommendations (General Technical Report, RM-217).

The revised Plan, FEIS, FEIS Appendices, and several additional documents clarify the role of standards and guidelines in the plan and provide extensive rationale to support the decision to integrate the previous management direction for northern goshawk and other wildlife into a combination of desired conditions and guidelines based on the best available scientific information.

The revised Plan defines guidelines in Chapter 1 (p. 5) and the glossary (p. 150) as follows:

> Guidelines are technical design criteria or constraints on project and activity decision making that help to make progress toward desired conditions. A guideline allows for departure from its terms, so long as the intent of the guideline is met. Deviation from a guideline must be specified in the decision document with the supporting rationale. When deviation from a guideline does not meet the original intent, a plan amendment is required.

The FEIS Appendix M, (pp. 577-654) provides a crosswalk for key standards and guidelines from the original Plan (as amended) compared to the revised Plan. On page 577 it states, "The intent of this appendix is to provide greater transparency on how existing plan direction (e.g.,

standard and guidelines) was incorporated into the revised plan…. The revised plan is strategic in nature, as such; many of the standards and guidelines in the revised pan were reframed as desired conditions or guidelines. In other instances, existing plan guidance was modified or removed because it reiterated other law, regulation, or policy."

The revised Plan provides Desired Conditions and Guidelines for threatened, endangered, and sensitive (TES) species (pp. 51 and 52); and for species with restricted distributions ("rare and narrow endemics", p. 52). The crosswalk in FEIS Appendix M includes numerous descriptions of current management direction specifically developed for TES resources (e.g., p. 616, which describes a current guideline for northern goshawk and compares it to management direction under the 1988 Forest Plan, as amended) as well as provisions for TES included in other resource areas (e.g., p. 619, which describes the relationship between a current minerals management guideline restricting surface use in areas with TES habitat and compares it to guidelines for minerals management in the 1988 plan). FEIS Appendix H describes how the collection of plan components meet species-specific habitat needs, either for individual species or species grouped based on overarching habitat associations or function groups as described in the Species Diversity Report Version 1.2.5. For example, Appendix H describes how plan components for several forested community types meet the habitat needs of numerous species requiring interlocking tree-crowns, including northern goshawk and Mexican spotted owl. (pp. 505-508)

In addition to these Desired Conditions and Guidelines for TES and wildlife, the revised Plan includes detailed Desired Conditions at described multiple spatial scales for ponderosa pine (pp. 17-19) and mixed conifer forests (pp. 21-23). These desired conditions were developed to incorporate the standards, guidelines, and other direction in the 1988 plan as amended to include the 1996 FSM Supplement for northern goshawk as described in FEIS Appendix M (pp. 593-616). The revised Plan also contains several standards and numerous guidelines for vegetation management in all forested communities (pp. 30-31). Included among these are standards and guidelines that carry forward the intent of some of the previous management direction for northern goshawks. Specifically, there are standards limiting the size of forest openings created from vegetation management and specifying that clearcutting shall be used only when it is the optimum harvesting method for achieving desired conditions. The guidelines include provisions to "generally not remove" trees previously identified in the 1998 Forest Plan (as amended) to be important to northern goshawk and other wildlife. Included among these are large, old ponderosa pine, mature trees with dwarf mistletoe, large snags, and gambel oaks >8 inches diameter (p. 30). Guidelines for wildlife include protection of goshawk nest sites and post-fledging areas (PFAs) (p. 52). Appendix C of the Wildlife Specialist Report also includes a crosswalk describing how revised Plan direction meets specific needs for various wildlife species, including northern goshawk (pp. 113-147).

Several analysis approaches were used to model the effects of different management alternatives and disturbance scenarios on vegetation and wildlife habitat. These are described in detail in the FEIS Appendix B (Methodologies and Analysis Process) and supporting documents (e.g., Wildlife Specialist Report, Vegetation and Fire Specialist Report) and include the use of the Vegetation Development Dynamics Tool (VDDT), Forest Vegetation Simulator (FVS) and a state and transition model that estimates acres of Potential Natural Vegetation Types (PNVT) under different management alternatives and disturbance scenarios (FEIS Appendices, p. 421). These models do not attempt to model all aspects of northern goshawk habitat or habitat for all wildlife species; rather "Potential natural vegetation types (PNVTs) represent the vegetation type and characteristics that would occur when natural disturbance regimes and biological processes prevail (Schussman et al. 2006)" (Wildlife Specialist Report, p. 5). Chapter 3 of the FEIS

(Affected Environment and Environmental Consequences) summarizes the analysis approach as applied to wildlife habitat (pp. 65-68) and summarizes species risk in Table 15 (pp. 86-87). FEIS Appendix J describes the use of best available science for wildlife (pp. 549-555). There is not a comparable Appendix describing the use of best available science for the development of desired conditions for forested communities. Rather, these references are included in various sections of the FEIS and its Appendices (e.g., p. 338).

The revised Plan and ROD discuss standards and guidelines as components of the revised plan decision. The revised plan defines "guidelines" and "standards," clarifying the difference between the terms and elevating the meaning of "guidelines" beyond the FSM 1905 definition. The revised Plan and ROD explain how management direction has been presented differently from the original Plan. The FEIS analyzes the original plan (Alternative A) and the revised Plan (Alternative B), providing a crosswalk of the key plan component changes from the original Plan in the FEIS Appendix M.

The crosswalks developed to describe the relationship between plan direction in the 1988 Plan, as amended, and the revised Plan (FEIS Appendix M) and to demonstrate how plan direction under the revised Plan meet habitat requirements for various species groups (Appendix H), establish the foundation for providing for species viability.

Comparisons of habitat available for northern goshawks for the no-action alternative (Alternative A, continued management direction under the 1988 Forest Plan, as amended) and the selected alternative (Alternative B) are presented in the FEIS on pages 97 and 112, respectfully. Under these two alternatives habitat for northern goshawks would be greater under Alternative B (235,244 acres in ponderosa pine forest and 35,310 acres in frequent fire mixed-conifer forest) than under Alternative A (196,949 acres of ponderosa pine forest and 39,593 acres of frequent fire mixed-conifer forest). Across the two forest types, northern goshawk habitat under Alternative B is modeled to be 34,012 acres more than under Alternative A.

The analysis approach and results are described in the FEIS (Appendix B and Chapter 3) and supporting documents (e.g., Wildlife Specialist Report, Vegetation and Fire Specialist Report). These documents compare alternatives, disclose assumptions, and highlight Alternative B (the selected Alternative) as generally being most effective for providing wildlife habitat requirements. The vegetation management standards and guidelines for forested communities and the guidelines for wildlife accommodate the key provisions of the 1992 Management Recommendations for Northern Goshawks. The overall management approach provides long-term benefits for wildlife by reducing potential impacts of uncharacteristically severe wildlife through restoration of ecosystem structure and function.

The revised Plan, FEIS, and FEIS Appendices provide thorough descriptions of differences among management alternatives, desired conditions, analysis methods, and results for forested communities and present results for northern goshawk habitat available under the different management alternatives. The amount of habitat available for northern goshawks is clearly presented in the FEIS for Alternative A (p. 970) and Alternative B (p. 112). Under the described analysis approach, Alternative B is shown to provide more overall habitat for northern goshawks. The Forestwide standards and guidelines for forested communities and the guidelines for wildlife ensure availability of goshawk nesting areas, post-family fledging areas, and other habitats to meet goshawk life requisites.

The revised Plan, FEIS, FEIS Appendices and supporting documents also disclose potential effects on sensitive species resulting from changes in management direction. The analysis approach and results are described in the FEIS (Appendix B and Chapter 3) and supporting documents (e.g., Wildlife Specialist Report, Vegetation and Fire Specialist Report). These documents compare alternatives, disclose assumptions, and highlight Alternative B (the selected Alternative) as generally being most effective for providing wildlife habitat requirements. The vegetation management standards and guidelines for forested communities and the guidelines for wildlife accommodate the key provisions of the 1992 Management Recommendations for Northern Goshawks. The overall management approach provides long-term benefits for wildlife by reducing potential impacts of uncharacteristically severe wildlife through restoration of ecosystem structure and function. Appendix M provides detailed rationale for the change in plan direction from the 1998 Forest Plan, as amended, and the alternative selected in the revised Plan.

I find the management direction in the revised Plan is adequate to provide for the habitat necessary to contribute to the viability of northern goshawk and other threatened, endangered, and sensitive species and, therefore, there is no violation of law, regulation, or policy as it pertains to this appeal issue.

- Riparian habitat management direction

Issue: Appellant makes several contentions regarding the revised Plan's management direction for riparian habitat. Those contentions are embodied in the following statements:

> The Forest Service violated NEPA and NFMA by failing to provide adequate plan components for riparian ecosystems and failing to identify reasons for change of its management approach.
>
> The Forest Plan does not contain management guidance or monitoring questions for riparian areas that meet the requirements of NFMA or reflect regional guidance regarding climate change.
>
> [T]he Forest Plan section titled "Natural Waters" provides no substantive plan components for riparian areas." "No standards, guidelines, objectives or management approaches are provided for natural waters.
>
> Nowhere in the planning record does the Forest Service provide a rationale for eliminating the standards and guidelines for riparian areas contained in the 1988 Plan. Therefore, the Forest Service's action here is arbitrary and capricious and in violation of NEPA and NFMA.
>
> [T]he revised Forest Plan fails to include properties of riparian areas within its monitoring plan, thereby failing to provide any way to measure whether vague desired conditions for riparian areas every will be met. This gap in the monitoring plan violates the requirements of the 1982 Planning Rule, NFMA and NEPA"

(#0177, pp. 6-8)

Response:

Section 219.27 of the 1982 planning rule provides minimum specific management requirements to be met in accomplishing goals and objectives for the National Forest System. They are to "guide the development, analysis, approval, implementation, monitoring and evaluation of forest plans."

Specific to this issue, section 219.27(e) provides management requirements for riparian areas, directing that, "Special attention shall be given to land and vegetation for approximately 100 feet from the edges of all perennial streams, lakes, and other bodies of water. This area shall correspond to at least the recognizable area dominated by the riparian vegetation." The section goes on to provide specific requirements as follows:

> No management practices causing detrimental changes in water temperature or chemical composition, blockages of water courses, or deposits of sediment shall be permitted within these areas which seriously and adversely affect water conditions or fish habitat. Topography, vegetation type, soil, climatic conditions, management objectives, and other factors shall be considered in determining what management practices may be performed within these areas or the constraints to be placed upon their performance.

The importance of riparian habitat on the Kaibab was recognized early in the planning process for the revised Plan. In considering which need for change issues would be addressed in the plan revision, the Forest leadership team identified four priority topics, one of which was "Restore natural waters and wetlands to ensure healthy riparian communities." (FEIS, p. 62)

Riparian habitat represents little more than 0.1 percent of the entire Kaibab National Forest (FEIS, p. 27). Because of its small acreage, a distinct forest management area (MA) was not created during the planning process. Nonetheless, the Forest acknowledges the importance of this habitat type: "Riparian and wetland vegetation is present in small but important areas (see figure 4 and table 3) (FEIS, p. 26).

The ability to restore degraded riparian habitat in wilderness was addressed by the Forest . "The cottonwood-willow vegetation type in Kanab Creek Wilderness is highly departed due to tamarisk invasion, and the lack of flood disturbances due to impoundments upstream and off the forest. Few options for management actions to improve conditions exist, so it did not rise as a priority need for change within the planning period, but would still likely provide refugia for species requiring a low-elevation riparian habitat within the section." (FEIS, p.62)

The FEIS explains that because of various riparian habitat conditions and influences the ability of the Forest to provide this type of habitat (perennial stream habitat) required by various wildlife species is doubtful.

> Riparian systems have decreased in size over the past 100 years, largely a result of human development. There has been a 90 percent reduction of this habitat type in Arizona compared to historic (reference) conditions. On the Kaibab NF, this vegetation community [Cottonwood-Willow Riparian Forest] is located only within the Kanab Creek Wilderness. Historically, annual flooding was a major

> disturbance needed to maintain the historic vegetation levels necessary for many wildlife species, which utilize this habitat type. This community is currently departed from historic conditions due to upstream diversions, impoundments, and tamarisk invasion. This watershed is not wholly contained within the forest and the Kaibab NF has little control over upstream water management. For this reason, it will be difficult for the forest to fully restore this habitat to reference conditions.

(FEIS, p. 133)

The Forest does acknowledge that some riparian restoration efforts might be centered on restoring degraded springs. "Several springs have been documented to be at risk or nonfunctional riparian areas due to ungulate grazing, spring infrastructure maintenance needs, or recreational impacts." (FEIS, p. 71)

In addition, the Forest acknowledges,

> The amount of riparian or wetland habitat and waters could have a slight increase from the current amount of habitat due to restoration work. The quality of existing habitat should increase as wetlands and springs are surveyed and monitored. The forest would be able to better assess which areas are no longer in proper functioning condition and improvements can be done. The listed desired conditions, objectives, and guidelines should provide long-term viability for the Kaibab fairy shrimp, northern leopard frog and long-tail vole and would not lead toward Federal listing of these species.

(FEIS, p. 108)

The revised Plan also describes the importance of riparian habitat and associated water features on the Kaibab NF.

> Southwestern riparian ecosystems—which include ephemeral, intermittent, and perennial streams and rivers—are ecologically dynamic habitats characterized by linear patches of vegetation. Riparian systems have decreased in size over the past 100 years, largely as a result of human development. In the West, factors such as livestock grazing, beaver extirpation, and road development are commonly attributed to the loss of riparian habitat. Riparian areas are considered one of the most important habitat types for Arizona and the Southwest. Activities such as channelization and river diversion, domestic livestock grazing, timber harvest, invasive species colonization, recreation, and infrastructure development have led to a 90 percent reduction of this habitat type in Arizona and New Mexico, compared to historic (prior to 1890) conditions.

(revised Plan, p. 42)

Regarding the cottonwood-willow riparian forest:

> On the Kaibab NF, this vegetation community is located only within Kanab Creek Wilderness at elevations ranging from 3,200 to 4,500 feet and covers approximately 1,200 acres. It evolved with flooding as a major natural disturbance. Upstream diversions, impoundments, and tamarisk (Tamarix

> ramosissima) invasion has resulted in departures from the historic flooding regime. As a result, this vegetation community on the Kaibab NF does not typically occur in patches large enough to be considered a "forest".

(revised Plan, p. 42)

And regarding natural waters:

> About half of the natural springs and other waters on the Kaibab NF are currently departed from reference conditions. Protection and restoration of these rare resources can be accomplished through actions such as controlling invasive species, maintaining or removing constructed modifications, fencing out large ungulates, and improving hydrologic function by reducing tree densities in adjacent vegetation types. Besides ecological values, natural water bodies are associated with high social and economic values such as bird watching and traditional cultural uses."

(revised Plan, pp. 3-4)

Management direction in the form of plan components (Desired Conditions, Objectives, Guidelines) that are directly or indirectly applicable to riparian habitat on the Kaibab are found in several places in the revised Plan, including sections for Wetland/Cienega vegetation communities, Cottonwood-Willow Riparian Forest, Soils and Watersheds, Natural Waters, and Constructed Waters.

Management direction for **Wetlands/Cienegas** that is applicable to riparian habitat includes the following:

Desired Conditions

- Wetland conditions are consistent with their flood regime and flood potential. • Native plant and animal species that require wetland habitats have healthy populations within the natural constraints of the particular wetland community.
- Wetlands infiltrate water, recycle nutrients, resist erosion, and function properly.

Objectives

- Restore native vegetation and natural water flow patterns on at least 6 acres of wetlands within 5 years of plan approval.

Management direction for **Cottonwood-Willow Riparian Forest** that is applicable to riparian habitat includes the following:

Desired Conditions

- The extent, diversity, and condition of riparian habitat contribute to ecological sustainability. Dense shrubbery and high levels of vegetative diversity (structural and compositional) and permanent water provide food, cover, and water for wildlife, including terrestrial and aquatic invertebrates and vertebrates.

- Vegetation is characterized by willow and other herbaceous understory species. Snag and gallery tree components comprise 55 percent mid-aged to mature cottonwood and willow trees, 25 percent younger younger trees and 20 percent in grass, forbs, shrubs, suckers, seedlings, and tree sprouts.
- Vegetation is structurally diverse and provides habitat for high bird species diversity and abundance with nesting and foraging opportunities for neotropical migrant birds.
- Mature cottonwood and other trees provide cavities for cavity dependent wildlife such as woodpeckers, sapsuckers, and secondary cavity users.
- Tall trees provide lookouts and opportunities for nesting raptors.
- Water flow regime approximates reference conditions (i.e., perennial flows) and flows freely. Sedimentation is minimized. Springtime flooding contributes to ecosystem sustainability by optimizing germination conditions for seedlings and/or suckering opportunities from the parent plant.
- Native vegetation dominates, but when nonnative vegetation is present, the spatial and structural composition contributes to overall faunal diversity.
- Grazing from domestic ungulates is minimal or absent.
- Soil is free from compaction and includes sand and gravelly reaches and provides suitable germination sites for desirable plant species.
- Sandy and vegetated terraces provide habitat for reptiles and amphibians.
- Shallow exposed watersides provide drinking and foraging opportunities for wildlife.
- Fire is limited or absent in this system.

Management direction for **Soils and Watersheds** that is applicable to riparian habitat includes the following:

Desired Conditions

- Vegetation conditions within watersheds contribute to downstream water quality and quantity. Surface runoff, sheet, rill, and gully erosion, and subsequent sedimentation into connecting waters downstream is minimal.
- Flooding maintains normal stream characteristics (e.g., water transport, sediment, woody material) and dimensions (e.g., bankfull width, depth, slope, and sinuosity). Vertical down cutting and embeddedness are absent in drainages.
- Flood plains are functioning and lessen the impacts of floods on human safety, health, and welfare.
- The fuels composition within watersheds does not put the watersheds at risk for uncharacteristic disturbance.
- Water quality meets or surpasses State of Arizona or Environmental Protection Agency water quality standards for designated uses. Water quality meets critical needs of aquatic species.

Guidelines

- Projects should incorporate the national best management practices for water quality management and include design features to protect and improve watershed condition.
- In disturbed areas, erosion control measures should be implemented to improve soil conditions. Seeds and plants used for revegetation should originate from the same PNVT and general ecoregion (i.e. southern Colorado Plateau) as the project area.

Management direction for **Natural Waters** that is applicable to riparian habitat includes the following:

Desired Conditions

- Stream channel stability and aquatic habitats retain their inherent resilience to disturbances and climate fluctuations. Stream channel morphology reflects changes in the hydrological balance, runoff, and sediment supply appropriate to the landscape setting.
- Springs and ponds have the necessary soil, water, and vegetation attributes to be healthy and functioning. Water levels, flow patterns, groundwater recharge rates, and geochemistry are similar to reference conditions. Springs, streams, and ponds have appropriate plant cover to protect banks and shorelines from excessive erosion.
- Hydrophytes and emergent vegetation exist in patterns of natural abundance in wetlands and springs in levels that reflect climatic conditions. Overhanging vegetation and floating plants such as water lilies exist where they naturally occur.
- The necessary physical and biological components, including cover, forage, water, microclimate, and nesting/breeding habitat, provide habitat for a diverse community of plant and wildlife species.
- Riparian dependent plant and animal species are self-sustaining and occur in natural patterns of abundance and distribution. Within its capability, stream flow and water quality are adequate to maintain aquatic habitat and water sources for native and desired nonnative species. Native macroinvertebrates are appropriately abundant and diverse.
- Native amphibians are free from or minimally impacted by nonnative predation and diseases. Unwanted nonnative species do not exert a detectable impact on aquatic and wetland ecosystems
- Where springs or other natural waters have been modified for livestock and/or human consumption, developments are operational.
- The location and status of springs and water resources are known, organized, and available.

Objectives

- Protect and/or restore at least 10 individual springs within 5 years of plan approval.

Guidelines

- Access to natural waters should be restricted to designated trails and points of entry to mediate erosion and prevent trampling and inadvertent introduction of nonnative and undesirable biota and disease.
- Activities in and around waters should use decontamination procedures to prevent the spread of chytrid fungus.
- Fences constructed around natural waters should allow bats and other desirable wildlife to pass through unharmed.
- Diversions of water sources that recharge wetlands should be assessed and appropriate actions should be identified to mitigate or minimize effects.
- Spring source areas should be preferentially protected.
- Forest springs information should be maintained in a database that facilitates long-term archiving, easy data entry, and comparison with monitoring results.
- The impacts of management activities on springs, streams, and wetlands should be evaluated and minimized.

The revised Plan notes that some constructed waters provide unique riparian habitats and recreation opportunities. (revised Plan, p. 47) Management direction for **Constructed Waters** that is applicable to riparian habitat includes the following:

Desired Conditions

- Constructed waters do not contribute to the spread of chytrid fungus or unwanted nonnative species.
- Reservoirs maintain high water quality for parameters such as temperature, pH, and dissolved oxygen, and water levels are within the seasonal range of variable conditions.
- Artificial waters do not concentrate ungulate use in aspen stands.

Objectives

- Issue a closure order for restricting foot and boat traffic in the northern part of Scholz Lake during waterfowl nesting season within one year of plan approval.

Guidelines

- During waterfowl nesting season, foot and boat traffic should be restricted in the northern part of Scholz Lake.
- Current protocols for preventing the spread of chytrid fungus should be followed in riparian aquatic areas.
- If new waters are constructed, they should be located in areas that would reduce ungulate impact to sensitive vegetation or soils such as riparian, aspen, and wet meadow areas.

The extensive list of plan components described above adequately reflects the special attention required of the rule. Because the rule does not specify what form that special attention must take, the absence of standards within the plan components relevant to this issue does not cause the revised Plan to fail in its compliance with this requirement. As explained elsewhere in this appeal decision, the revised Plan is clear that desired conditions, objectives, and guidelines provide specific management expectations. In particular, departure from guidelines is only permissible when the intent of the guideline can be met in some other way. In that respect guidelines should not be considered discretionary.

It is also worth noting that Appendix M was added to the FEIS to track how key standards and guidelines from the original plan were addressed in the revised Plan. Some were retained, some were converted to desired conditions, and some were dropped because they reiterated higher-level policy or were not supported by science. The environmental consequences associated with these changes are reflected in the analysis for Alternative A (no change to the original plan) and the comparison of it to the other alternatives.

In summary, I find that the FEIS and revised Plan comply with 36 CFR 219.27(e) and its requirement for giving special attention to riparian habitat.

Recommended Wilderness

Issue: Appellant contends the Forest Service violated federal law with its recommendation for proposed wilderness areas. Specifically, the appellant states, "The agency provides no evidence that proposed PWA [potential wilderness area] would significantly reduce the options for semi-primitive recreation options. In summary, the agency's PWA recommendation fails to provide adequate interim protection of the Kaibab National Forest's significant but endangered de facto wilderness, nor does it reflect the public desire to protect this vanishing resource. (#0177, pp. 26-28)

Response:

The 1982 planning rule at 36 CFR 219.17 requires that roadless areas within the National Forest System (NFS) be evaluated and considered for recommendation as potential wilderness areas during the forest planning process. Forest Service Handbook (FSH) 1909.12, chapter 70 (Wilderness Evaluation) describes the process for identifying and evaluating potential wilderness in the NFS. This process is used by the Forest Service to implement the wilderness evaluations requirement of the 1982 planning rule and determine whether areas are to be recommended for wilderness designation by Congress.

The Kaibab National Forest's (KNF) wilderness evaluations are summarized in the FEIS, Appendix E - Wilderness Area Evaluation Summary. FEIS Appendices, p. 475-489. Further detail related to these evaluations is documented in the 2012 Wilderness Resource Report, the KNF potential wilderness area evaluation database, and the 2013 KNF Potential Wilderness Area Evaluation Report. These reports, analyses, and data show that KNF evaluated roadless areas for their wilderness capability, availability for wilderness, need for wilderness, and the effects of wilderness and non-wilderness recommendations, as defined in FSH 1909.12, chapter 70.

In the KNF Plan ROD, the responsible official selected Alternative B, which "identified approximately 6,400 acres in four potential wilderness areas (PWAs) for wilderness recommendation." ROD, p. 7; see also p. 9. The responsible official explains his rationale for this decision and states that the PWAs in Alternative B "have high wilderness capability and would either improve the manageability of existing wilderness areas or include an outstanding, distinct landform feature." ROD, p. 14; see also p. 12. Alternatives C and D were also analyzed in detail and both recommend additional acreage for wilderness designation, totalling approximately 44,000 acres. The responsible official provides justification for selecting Alternative B instead of C or D, as well why an alternative that would recommend all five of the 2001 Inventoried Roadless Areas for wilderness designation was considered but eliminated from detailed study. ROD, pp. 8-9.

The Kaibab NF followed a process for evaluating roadless areas for recommendation as potential wilderness that is generally consistent with 36 CFR 219.17 and FSH 1909.12, chapter 70. The ROD adequately identified the responsible official's rationale for selecting Alternative B, supported by the evaluations conducted and documented by the Kaibab NF. As a result, it was within the responsible official's discretion to select Alternative B and recommend the potential wilderness areas within that alternative, as well as not recommend other roadless areas on the Forest for wilderness designation. I find no violation of law, regulation, or policy with respect to the recommended wilderness in the revised Plan.

Viability of the California condor

Issue: Appellant contends the Forest Service cannot reasonably conclude that the condor population on the Kaibab National Forest is or would be viable under any of the alternatives considered. Alleging that an incorrect definition of viability was applied, the appellant concludes "both the Forest Service's finding of species viability under all alternatives and its reclassification of the species in the FEIS are arbitrary and capricious under the APA and in violation of NFMA." (#0177, pp. 23-24)

Response:

Regulations pertaining to wildlife viability requirements under the 1982 Planning Rule (36 CFR 219.19) state the following:

> Fish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area. For planning purposes, a viable population shall be regarded as one which has the estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area.

Section 219.19 continues by specifying the means by which consistency with the regulation is achieved in stating the following:

> In order to insure that viable populations will be maintained, habitat must be provided to support, at least, a minimum number of reproductive individuals and that habitat must be well distributed so that those individuals can interact with others in the planning area.

California condor habitat availability and distribution are discussed in the Wildlife Specialist Report, which assessed and compared species viability risk by management alternative. In the Wildlife Specialist Report (pp. 4-45), habitats associated with California condor (i.e. rocky outcrops, cliffs, and canyons) are assessed for abundance (ranked as 'Common', meaning the habitat element is abundant and frequently encountered, and generally is found on more than 10 percent of the national forest planning area) and distribution (ranked as 'Good', meaning the habitat element is well distributed within the planning area and intermixed lands relative to conditions present prior to European settlement) (p. 34, Table 12). Habitat abundance and distribution indices are then combined to produce a likelihood of limitation (ranked as 'Low'), and management effects (ranked as '3', which signifies "Maintain habitat abundance and distribution that is currently on forest planning area"). These habitat factors are then combined with the condor's F-rank (F2) to produce indices of Viability Risk by management alternative. The FEIS (p. 82, Table 14) and Wildlife Specialist Report (p. 36, Table 13) identify a moderate viability risk to California condor under all alternatives. Risk factors addressed by management direction in the revised Plan are listed in the Wildlife Specialist Report (pp. 60-61).

The FEIS states that, "While some individual birds could be impacted by actions on the forest and cumulatively there is a negative effect to the Southwest population from lead shot, the alternative management activities would not adversely affect the viability of the species.…", thereby acknowledging that exposure to lead ammunition poses negative effects to condors.

However, the FEIS (p. 9) also addresses the lead ammunition issue, stating it is outside the scope of the plan revision FEIS analysis. The FEIS states, "Further, additional protections for the condor are not needed for the purposes of the forest plan."

Because the issue of Forest Service control of lead ammunition use is outside the scope of this analysis, this risk factor is not a forest management activity included in the viability risk assessment (FEIS, p. 96). Condor exposure to lead ammunition, both on and outside Kaibab National Forest lands is addressed as a cumulative effect in both the Wildlife Specialist Report (p. 98) and the FEIS (pp. 133-134).

The process used in the revised Plan to assess species viability assesses habitat availability and distribution and addresses risk factors pertinent to the scope of the analysis. Therefore, the analysis is consistent with the means of insuring viable populations set forth in 36 CFR 219.19. I find no violation of law, regulation, or policy.

In a related contention, the appellant states, "[I]n the FEIS, the Forest Service changed the condor's ranking to 'F2' - indicating that this species is 'very rare on the forest.' FEIS at 68. This change was made without explanation and was not supported by any additional information or documentation of the condor population on the Kaibab National Forest." (#0177, p. 24)

The DEIS (p. 65, Table 9) identifies that California condor is ranked as 'FN' (non-breeding). The DEIS (p. 69) also states that breeding had occurred on the Kaibab by describing that, "The first successful nesting attempt for condors on the forest occurred during the 2011 nesting season. In general, condors use the forest primarily for foraging." This would be inconsistent with the 'FN' ranking. As the appellant correctly points out, the FEIS (p. 69, Table 9) ranks the condor as 'F2' (very rare on the forest) and describes that, "In 2010, there was a failed nesting attempt on the forest. The only successful nesting for condors on the forest occurred during the 2011 nesting season. The forest is used primarily for foraging." The change in ranking in the FEIS to 'F2' appropriately corrects an inconsistency in status presented in the DEIS.