



United States
Department of
Agriculture

Forest
Service

Sierra Vista Ranger
District
Coronado National Forest
fax (520) 378-0519

5990 S. Highway 92
Hereford, AZ 85615
phone (520) 378-0311

File Code: 1950-1/2210/2230

Date: November 3, 2003

Dear Interested Party:

Enclosed are copies of the Decision Notice and Finding of No Significant Impact for the Seibold and Crittenden Allotment Management Plans. These two allotments were included in the Environmental Assessment of the Seibold/Crittenden/Papago and Kunde Allotments, but separate decisions are being issued for these two allotments. I have made a decision to implement *Alternative 4*. The enclosed documents explain the rationale for my decision. Also enclosed is our response to comments received on the Environmental Assessment and the project record index.

This decision is subject to appeal in accordance with 36 CFR 215.7, dated November 4, 1993 and effective January 3, 1994. A notice of appeal must be in writing and clearly state that it is a Notice of Appeal being filed in pursuant to 36 CFR 215.7. Appeals must be filed (regular mail, fax, email, hand delivery or express delivery) with the Regional Forester, Southwestern Region, 333 Broadway SE, Albuquerque, New Mexico 87102. The Regional Office contact for appeals is Patrick L. Jackson, Regional Appeals Reviewing Officer (505) 842-3305. Email appeals may be sent to Appeals-southwestern-regional-office@fs.fed.us. Appeals must be filed within 45 days of the date of legal notice of this decision in the *Sierra Vista Herald/Bisbee Daily Review*, the newspaper of record. The publication date in the newspaper of record is the exclusive means for calculating the time to file an appeal.

I appreciate your interest in the management of resources on the Coronado National Forest and thank you for your participation in the decision process. Feel free to contact this office at (520) 378-0311 if you have any questions.

Sincerely,

/S/ STEPHEN L. GUNZEL
STEPHEN L. GUNZEL
District Ranger



Decision Notice
& Finding of No Significant Impact
Grazing Authorization
and
Allotment Management Plan
Seibold, Crittenden, Kunde and Papago Allotments

USDA Forest Service
Sierra Vista Ranger District, Coronado National Forest
Santa Cruz County, Arizona

Decision and Reasons for the Decision

Background

This decision covers the authorization of grazing and approval of the Allotment Management Plans for the Seibold, Crittenden, Kunde and Papago Allotments. The purpose and need for action arose because there are currently no long-range management plans for the allotments; there is a need to modify management practices to provide for the protection and recovery of Threatened, Endangered and Sensitive species and their habitats occurring on the allotments; construction and reconstruction of infrastructure to improve cattle distribution and range condition is needed and there is a need to improve rangeland and watershed resources on the allotment within the guidelines of the Forest Plan. In addition, recent actual use on the Papago allotment has been significantly less than permitted numbers, suggesting that permitted numbers should be reduced.

The allotments are located in the Canelo Hills in the northwest portion of the Huachuca Ecosystem Management Area, Sierra Vista Ranger District. The allotments encompass 29,346 acres with 26,342 acres (approximately 90 percent) being classified as capable for grazing. Vegetation consists of plains grassland, desert grassland, broadleaf evergreen woodland, riparian and chaparral.

Public scoping for the environmental analysis process was initiated on February 22, 1999. An Environmental Assessment (EA) was released for public review on May 1, 2003. The EA documents the analysis of four alternatives to meet the purpose and need.

Decision

Decision Context: A proposed action was developed to meet the need for a management plan that reflects current resource conditions and opportunities. Scoping and public comment identified the following issues related to the proposed action.

- **Grazing effects on riparian area condition:** Issuance of term grazing permits may prevent the attainment of satisfactory riparian area conditions within the allotments.

- **Grazing effects on fisheries:** Issuance of term grazing permits may have adverse effects on Gila topminnow.
- **Range condition:** Stocking and utilization levels in the proposed action may not permit the attainment of Forest Plan objective of restoring rangeland to moderately high ecological condition.
- **Grazing effects on wildlife:** Issuance of term grazing permits may have adverse effects on threatened, endangered, sensitive or management indicator wildlife species.
- **Economics:** 1) The proposed action includes range improvements that may be subsidized by taxpayers. 2) If a rancher is in a precarious economic position, there may be incentives to manage livestock in ways that are detrimental to the land and its resources.

Alternatives were developed to address these issues (below and EA pages 13-19). Prior to making this decision, I reviewed the project record, environmental assessment and public comments received on the proposal. The following discussion documents my decision and rationale for the Seibold, Crittenden, Kunde and Papago Allotments.

Decision Rationale: Based upon my review of all alternatives, it is my decision to implement *Alternative 4, Redrock Pasture Exclosure/Preferred Alternative*. The selected action is consistent with the management emphasis and direction for Management Areas 1, 4, and 7 of the Coronado Forest Plan. The action is described below, by allotment.

Seibold and Crittenden Allotments

- Combine the two allotments into a single management unit. Implement a six-pasture rotation with the combined herd through Corral Canyon, Red Bear, Oak Grove, Moonshine, East Redrock and West Redrock pastures. Use in pastures containing Redrock Creek will be limited to one month in the winter.
- Issue 10-year grazing permits for 165 CYL (2008 AM) on the Crittenden allotment and 608 AM (50 CYL) on the Seibold allotment. Animal months are used to reflect the fact that there may be more than 165 cattle at a time, but for a shorter period of time.
- Build an exclosure fence around Corral Canyon spring (Crittenden) and build a holding pasture of 40-80 acres around the exclosure. This will reduce grazing impacts in a low flat area where cattle tend to congregate, protect riparian resources and facilitate livestock management. The holding pasture will be used only when gathering the herd (approximately 80 head overnight, approximately 6 times a year), and will not be grazed at other times. An existing water line south of Corral Canyon Spring will be extended approximately one mile northwest to provide a water source northwest of the spring and to better distribute cattle.
- Build a holding pasture in the northeast corner of Crittenden Pasture (Crittenden) to limit cattle use of the Alamo Spring area and at the same time facilitate livestock management. Ride through gates will be included to ensure adequate access for equestrian users.
- Establish two upland water sources, one east and one west of Oak Grove Spring, to limit cattle impacts in drainage below Oak Grove Spring (Seibold). The spring was fenced to exclude livestock in 2001 in compliance with the terms and conditions of the Biological Opinion on ongoing grazing (Docs. 87, 102). Establishment of water sources away from the drainage will further mitigate grazing effects in the riparian area.
- Extend a pipeline from existing storage tanks to provide water to the southeast side of Red Bear Pasture, and also to the neighboring Kunde allotment (see first item in Kunde allotment

proposed action). This will help distribute cattle leading to overall improved rangeland condition.

- Winter (December-April) around 50 head of dry cows each year in Crittenden pasture. Every other year, an additional 50 head of replacement heifers will be raised in that pasture for 10 to 12 months. These cattle are part of the 1980 AMs permitted. The pasture will be rested during the summer growing season every other year. Raising heifers every other year will provide a drought reserve option because 1) cows from the base herd can easily be substituted for heifers during dry years, and 2) heifers (~600 lbs) consume less forage than mature (~1100 lb) cows.
- Build a fence around Red Bear tank (Crittenden) to aid in controlling distribution of cattle and provide aquatic wildlife habitat.
- Build a fence around Gasline tank (Crittenden) to aid in controlling distribution of cattle and to provide aquatic wildlife habitat.
- Build water lots (approximately 200 ft²) around the water storage and trough in the Crittenden pasture (Crittenden) and around the existing trough on the fence between Corral Canyon and Red Bear Pastures. Closing the water source will help keep cattle out of the area when utilization limits are approached. The fenced area can also be used to temporarily hold cattle during gathering and branding.

Kunde Allotment:

- Exclude grazing from the Redrock Pasture in order to reduce grazing impacts to the Gila topminnow and to improve riparian and watershed condition in Redrock Canyon. Permitted numbers of cattle would be reduced from 636 AM to 372 AM (31 CYL) to reflect the reduction in available capable acres.
- Issue a ten-year term grazing permit for 31 CYL (372 AM, cow/calf, year-long).
- Establish a three pasture rotational grazing schedule using Upper Lampshire, Lower Lampshire and Holding pastures that allows growing season rest in all pastures, at least every other year.
- Run a pipeline from the Crittenden Allotment storage tanks to Upper and Lower Lampshire Pastures of the Kunde Allotment to help distribute livestock improve rangeland and watershed condition (this project is referenced under the Crittenden Allotment Proposed Action also).

Papago Allotment

- Issue a 10-year grazing permit 250 CYL (3000 AM), a reduction from 400 CYL (4800 AM).

The fence and water developments listed below will provide more control of livestock and increase the effectiveness of pasture rotation, leading to overall improved rangeland condition. They will need to be completed before the AMP can be fully implemented.

- Reconstruct Middle/North division fence (3/4 mile).
- Construct 1/4 mile of fence to divide Maloney and Falda pastures.
- Reconstruct Lampshire/Pinto division fence (1 mile).
- Remove the trap in North Pasture. It is not needed
- Construct a pipeline into Papago Pasture from well in NW end of Middle Pasture (~2.5-3 miles).
- Construct a pipeline into Rincon Pasture from Cave Well (~.75 mile).
- Clean sediment/debris from Double Tanks.

- Extend the pipeline in West Mountain Pasture (~1 mile).
- Extend the pipeline in Lampshire Pasture (~1.5 mile).
- Construct a pipeline into Pinto Pasture (~1.5 mile).
- Construct a pipeline from storage tank in 83 Pasture to troughs at the north and south side of 83/E.Cemetary division fence.
- Extend a pipeline into Roundup Pasture and install a trough on the east side.

Forage utilization levels on all allotments will be maintained at 45% or less in designated key areas, with no more than 30% utilization on riparian trees and shrubs. Within Mearns' quail key habitat areas allowable use will be 35-40% with a maximum of 45%. Key areas for monitoring will be verified or established and monitored to determine use levels. Moves between pastures will be regulated by water and forage availability as well as utilization levels. Annual operating instructions will be used to insure that pastures are not grazed during the growing season in consecutive years.

When compared to the other alternatives this alternative will meet the purpose and need and address the identified issues in the following ways.

- a. The permitted numbers selected are within the range of variability depicted in the environmental analysis conducted for this project and are consistent with calculated capacity on the allotments.
- b. The decision provides for construction and repair of infrastructure to improve livestock distribution, which will reduce use in riparian areas, increase vegetative cover and increase litter accumulation.
- c. The decision removes livestock grazing from approximately 1500 acres in the Kunde allotment, including 1.5 miles of Redrock Creek, thereby reducing grazing effects on riparian and upland watersheds and on fisheries. The decision limits grazing to short periods during the dormant season elsewhere on Redrock Creek, maintains existing enclosures in Redrock Canyon and O'Donnell Creek and proposes additional riparian enclosures within the project area.
- d. The decision reduces permitted use and limits utilization to 45% or less in key areas and 30% (percent browsed stems) on riparian trees and shrubs.
- e. The decision provides a basis for sharing responsibility for successful implementation of this decision with the permittees.

Mitigation. In addition to the measures described in the preferred alternative, above, the following mitigation practices will be employed to further reduce potential environmental effects (EA pages 16-17):

Forest Plan standards and guidelines (page 34) and the Forest Service Manual (Chapter 2361, Supplement 2600-94-1; Doc. 95, project record) specify mitigation measures for livestock use of Mearns' quail habitat. These mitigation measures supplement standard forage utilization limits in areas of high quality Mearns' quail habitat. Mearns' quail key areas within identified high quality habitat have been identified by the District Biologist in cooperation with AGFD. Allowable use within key areas will be 45% maximum with a desirable level of 35-40%. The objective of these use levels will be the maintenance of an average minimum standard of six

inches of herbaceous stubble height as quail cover. This standard will be met within the normal cycle of wet and dry years.

Through consultation with the US Fish and Wildlife Service (USFWS) on the Forest's ongoing livestock grazing program (Biological Opinion AESO/SE 2-21-98-F-399-R1, Doc. 103), the Forest has committed to develop a monitoring program to assess the effects of livestock herbivory on flowering agaves in order to better understand the effects of such herbivory on the lesser long-nosed bat which depends on agaves for food. Monitoring will occur on allotments within 11 miles of two large bat roosts on the Forest. All four of the allotments in the analysis area are within 11 miles of one such roost. Under the selected alternative, the Forest will monitor the use of flowering agaves in allotments where livestock grazing occurs during the agave bolting season (April 1-June 15, annually). Should the density of flowering agaves fall below 0.2 plants/hectare (0.08 plants/acre), the Forest will reinitiate consultation with the USFWS. In addition, all range construction projects will be designed to avoid the destruction of agaves and the disturbance of bat roosts. If impacts to agaves are unavoidable, the Forest will ensure that no more than 1% of agaves within 800 meters of the project are impacted.

In order to minimize the take of Sonoran tiger salamanders as a result of routine stockpond maintenance, the Forest has adopted stockpond management and maintenance guidelines that are in effect on allotments in the San Rafael Valley and surrounding areas (Doc. 103, 105). Although Sonoran tiger salamanders have not been confirmed on the allotments, they are found on adjacent allotments. Should Sonoran tiger salamanders be confirmed on allotments within the analysis area, the Forest will implement the stockpond management guidelines in potential habitats.

A portion of O'Donnell Creek on the Papago allotment is fenced to exclude livestock in order to protect habitats for the Gila chub, Chiricahua leopard frog, the Canelo Hills ladies tresses and the Huachuca water umbel. The Forest will inspect and maintain the enclosure three times a year.

The 2002 Biological Opinion on ongoing grazing (Doc. 103) specifies terms and conditions for livestock management activities on the Seibold allotment that are necessary to minimize the take of Chiricahua leopard frog. These measures include requirements to survey for and salvage frogs during stock pond cleaning activities; measures designed to minimize the introduction of non-native species or chytrid contamination into occupied sites; measures to reduce direct mortality and damage to aquatic cover as a result of livestock impacts and the requirement to monitor and report incidental take. These terms and conditions will be included in the annual operating instructions for the Seibold allotment.

Four enclosures established on behalf of Gila topminnow are located in the project area. These are Pig Camp and Oak Grove Spring (Seibold) and Falls and Gate Spring (Kunde). These enclosures will be maintained and monitored once a year to ensure the fences are functional.

Appropriate monitoring data will be contributed to the annual report to the US Fish and Wildlife Service as required under the various terms and conditions of the Final Biological Opinion on ongoing livestock grazing on the Forest (AESO/SE 2-21-98-399-R1, Doc. 103).

The Holding Pasture/Lower Lampshire Pasture division fence will be completed, as planned for in the Redrock Canyon Action Plan (Doc. 3).

All new or reconstructed water developments will include wildlife access and escape ramps.

All new fencing will be built to Forest Plan standards (page 35) that provide for wildlife passage through the fence. At a minimum, this will be a 4-strand fence with a smooth bottom wire 16 inches off the ground and a total fence height of 42 inches or less. The Arizona Game and Fish Department (Doc. 27) recommends using smooth wire on both top and bottom strands.

The following Best Management Practices for grazing (FSH 2209) will apply:

- Annually prepare an operating plan with the permittee to allow for current allotment conditions.
- Make periodic field checks to identify needed adjustments in season of use and livestock numbers, including stock counts, forage utilization, assessment of rangeland to verify soil and vegetative condition and trend.
- Use necessary techniques to achieve proper distribution or lessen the impact on areas which are sensitive or would naturally be overused.

Monitoring. Key areas have been identified in the Allotment Management Plans for each allotment, consistent with the management guidelines in the Coronado Land and Resource Management Plan on page 22. Key species will be native perennial grasses that are palatable to livestock. These may include, but are not limited to, plains lovegrass, sideoats grama, wolftail, hairy grama and deer grass. The Sierra Vista District Range Staff Officer and the permittee will be responsible for monitoring livestock use to assure that use levels stay below 45%. The District Range Staff will develop a monitoring report for each set of data collected. When any single key area reaches the stated use objective, the livestock will be moved to next pasture or off the Forest.

Other Alternatives Considered

In addition to the selected alternative, I considered four other alternatives. A comparison of these alternatives can be found in the EA on pages 13-19.

Alternative 1. No Action/No Grazing. Under this alternative, use of the allotments by domestic livestock would be discontinued. No term grazing permits would be issued. All existing structural improvements would remain in place but would not be maintained. Periodic monitoring of structural improvements would be used to determine whether removal or maintenance is needed. Removal or maintenance would be authorized by a separate decision.

Alternative 2. Current Management. Under this alternative, a term permit would be issued for the numbers and types of livestock designated in previous permits. These would be 50 cows yearlong (CYL) on the Seibold allotment, 165 CYL on Crittenden, 53 CYL on Kunde and 400 CYL on Papago. With the exception of a short division fence on Kunde, no new developments would be constructed on the allotments. Utilization will be limited to 45% of key species in key areas.

Alternative 3. Proposed Action. On the Seibold and Crittenden allotments, this alternative is similar to the selected alternative, except that four water sources in the Crittenden allotment (Red Bear tank, Gasoline tank and two unnamed water troughs) would not be fenced. On the Kunde

allotment, the Redrock pasture would be grazed during the winter and a permit would be issued for 53 CYL. Management of the Papago allotment under Alternative 3 would be similar to that under the selected alternative. This alternative is described in detail in the EA (pages 8-10).

Alternative 5. No Range Improvements – Papago Allotment. This alternative is identical to Alternative 3 (Proposed Action) for the Seibold, Crittenden and Kunde allotments. On the Papago allotment, no new range improvements would be constructed. Instead, permitted numbers would be reduced to 150 CYL. The reduced stocking allows for increased growing season rest and lower utilization in order to achieve desired rangeland condition.

Public Involvement

The proposed action was presented to 199 potentially interested parties in the form of a Scoping Report (February 22, 1999; Docs. 18-20). Upon receipt of the Scoping Report, several parties expressed interest in a field trip to the project area. The District hosted two separate field trips to visit the project area (Docs. 40, 42-45). Additional meetings were held on January 5, 2001 (Doc. 59), May 15, 2001 (Doc.76) and May 23 (Doc. 77) between the District Ranger, the Interdisciplinary Team (IDT), other Forest Service specialists, and representatives from the US Fish and Wildlife Service (USFWS, January 5 and May 15) and the Arizona Game and Fish Department (January 5 only). A meeting between the District Ranger, the ID team and permittees or their representatives took place on March 14, 2001. A Heritage Resource Report (Doc. 75) was provided to the State Historic Preservation Officer and interested American Indian tribes.

Finding of No Significant Impact

After considering the environmental effects described in the EA, I have determined that these actions will not have a significant effect on the quality of the human environment considering the context and intensity of impacts (40 CFR 1508.27). Thus, an environmental impact statement will not be prepared. I base my finding on the following:

Context: The project is a site-specific action that by itself does not have international, national, regionwide or statewide importance. The discussion of significance criteria that follows applies to the intended action as is within the context of local importance in the area associated with the Sierra Vista Ranger District.

Intensity: The following discussion is organized around the Ten Significance Criteria described in the National Environmental Policy Act (NEPA) regulations (40 CFR 1508.27).

1. Impacts from this project are both beneficial and adverse. Adverse effects are short-term in nature and will not impair land productivity. Adverse effects have been reduced or eliminated through project design and mitigation measures. The long-term effect of rangeland improvement will be beneficial. My findings are not biased by the beneficial effects of the action. The EA and project record contain complete discussions of the anticipated effects (EA pages 20-61, project record Documents 86, 96, 98, 100, 102, 103, 115).
2. No significant effects on public health and safety were identified.

3. There are no known unique characteristics (such as, parks, prime farm lands, wetlands, wild and scenic rivers, etc.) associated with the allotment.
4. The effects on the quality of the human environment are not likely to be highly controversial. The environmental analysis process has documented expected environmental effects from my decision. These effects have been disclosed and the alternatives have been designed and mitigated to address the various issues raised. While some members of the public are opposed to public lands livestock grazing, this proposal is not highly controversial within the context of the National Environmental Policy Act.
5. The Forest Service has considerable experience with the types of activities to be implemented. The effects analysis (EA pages 20-62) shows the effects are not uncertain, and do not involve unique or unknown risk.
6. The decision to issue grazing permits does not establish a precedent for future actions with significant effects. Future actions will be evaluated through the NEPA process and will stand on their own as to environmental effects and project feasibility.
7. The cumulative impacts of the action on soils, vegetation and terrestrial and aquatic wildlife resources were considered. None of the effects are considered significant (see EA pages 30, 35, 49-50).
8. The action will have no significant adverse effect on districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, because none are identified within the project area. The action will also not cause loss or destruction of significant scientific, cultural, or historical resources (EA pages 60-61, Doc. 75).
9. Formal consultation with the U.S. Fish and Wildlife Service (*Final Biological Opinion on Continuation of Livestock Grazing on the Coronado National Forest*, dated October 24, 2002 [AESO/SE 2-21-98-F-399-R1]) was completed based on the findings that the proposed action is “likely to adversely affect” the Gila topminnow and the Lesser long-nosed bat on all four allotments and “not likely to adversely affect” Chiricahua leopard frog on the Crittenden, Kunde and Papago allotments, and the Huachuca water umbel on the Papago allotment (Doc. 103). Based on changes proposed on the Kunde and Papago allotments, the Forest re-initiated consultation for these allotments on May 1, 2003. The Forest determined that the preferred alternative “may affect, likely to adversely affect” Gila topminnow and lesser long-nosed bat. The Service concurred with these findings and also concluded that the proposal is also likely to adversely affect the Chiricahua leopard frog, because livestock will have access to occupied habitats in O’Donnell Creek during twice-yearly crossings of the enclosure. The Service concluded that the proposed action is not likely to jeopardize the continued existence of these species. Terms and conditions to minimize take and/or species-specific conservation measures are stipulated in the BO and are included in the mitigation measures for the selected alternative.

10. This proposal is in full compliance with all federal, state and local law requirements. State, local and tribal governments were consulted concerning this project. The action is consistent with the Coronado National Forest Land and Resource Management Plan.

Findings Required by Other Laws and Regulations

National Forest Management Act. The Coronado Land and Resource Management Plan was adopted on August 4, 1986 and has been amended eight times. Forest planning is currently guided by Code of Federal Regulations (CFR) at 36 CFR 219. The planning regulations state that projects implemented after the LRMP is in place must be "consistent with the plan" (36 CFR 219.10 (e)). The term permit grazing authorization and AMPs for the Seibold, Crittenden, Kunde and Papago allotments have been deemed consistent with the long-term goals and objectives listed on pages 9-11 of the Coronado LRMP, as amended. The LRMP identifies large portions of the allotments included in Management Areas 4 and 7 as suitable for grazing (LRMP, pages 47-82). There are no identified effects to management indicator species or sensitive species that would affect their long-term viability (EA, pages 35-50, Project Record Docs. 98, 100). Other NFMA consistency findings relate to the management of suitable timberlands. The project area does not contain any suitable timberlands; therefore, the other NFMA consistency requirements do not apply.

Endangered Species Act. Formal consultation with the U.S. Fish and Wildlife Service was completed both as part of the Forest-wide reinitiation of consultation on ongoing and long-term grazing on the Coronado National Forest and individually at the project level. The conclusions of this consultation (paragraph 9, above), document that the effects of the proposed action are not likely to jeopardize the continued existence of threatened, endangered or proposed species.

National Historic Preservation Act. A Heritage Resource Investigation was completed and provided to the State Historic Preservation Office with a finding of "no effect" on cultural resources and a recommendation for clearance for the implementation of the preferred alternative. Concurrence was received from SHPO and is included in the project record (Doc. 75). Consultation with American Indian tribes was completed (Project Record Docs. 19, 25).

Executive Order 13186 (Migratory Birds). The Environmental Assessment analyzed effects of the proposed action on Migratory Birds. There are no identified effect on Birds of Conservation Concern and Important Bird Areas (EA, page. 48-49).

Executive Order 12898 (Environmental Justice). This decision does not impose disproportionately high adverse human health or environmental effects on minority or low-income populations. Social and economic effects of the proposed action are analyzed on pages 50-55 of the EA.

Implementation Date

This project will not be implemented sooner than five business days following the close of the appeal filing period established in the notice of decision published in the *Sierra Vista Herald / Bisbee Daily Review*. If an appeal is filed, implementation will not occur sooner than 15 calendar days following a final decision on the appeal. Implementation means actually issuing the new permit or accomplishing any ground disturbing actions. Field preparation work needed

to implement this decision (e.g., location of monitoring sites and final fence locations, etc.) may proceed immediately.

Administrative Review or Appeal Opportunities

This decision is subject to appeal in accordance with 36 CFR 215.7, dated November 4, 1993. A notice of appeal must be in writing and clearly state that it is a Notice of Appeal being filed in pursuant to 36 CFR 215.7. Appeals must be filed with the Regional Forester, Southwestern Region, 333 Broadway SE, Albuquerque, New Mexico 87102. The Regional Office contact for appeals is Patrick L. Jackson, Regional Appeals Reviewing Officer (505) 842-3305. Appeals must be filed within 45 days of the date of legal notice of this decision in the *Sierra Vista Herald/Bisbee Daily Review*.

Relative to issuance of the term grazing permits, permittees may choose to appeal under the regulations listed at 36 CFR 251, Subpart C. The permittee must select which administrative review regulation (36 CFR 215 or 251) he will opt to use, because he cannot use both for the same appealed decision. An appeal by the permittee under the 36 CFR 251 regulations must be filed with the Coronado National Forest Supervisor, 300 West Congress, Tucson, Arizona, 85701. The Forest Supervisor Office contact for 36 CFR 251 appeals is Margaret VanGilder, Range Program Leader, (520) 670-4561.

Contact

For additional information concerning this decision or the Forest Service appeal process, contact Stephen Gunzel, District Ranger, Tom Lorenz or Bill Edwards, District Range Staff Officers, Sierra Vista Ranger District, 5990 S. Hwy. 92, Hereford, Arizona, 85615. Stephen Gunzel, Tom Lorenz and Bill Edwards can also be reached by phone at (520) 378-0311.

STEPHEN L. GUNZEL
District Ranger
Sierra Vista Ranger District

Date

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AGENCY RESPONSE TO COMMENTS
ENVIRONMENTAL ASSESSMENT
SEIBOLD, CRITTENDEN, KUNDE AND PAPAGO ALLOTMENTS
June 16, 2003

An environmental assessment (EA) was mailed for public comment on May 7, 2003. A Notice of Availability was published on May 7, 2003. The EA comment period ran from 5/8/2003 to 6/9/2003. Nine letters were received by the date of this response document. Comments are paraphrased below and are coupled with an agency response.

<u>Letter Number</u>	<u>Commenter/Organization</u>
1.	Jeff Burgess
2.	Gene Davison
3.	David R. Lukens, Western Gamebird Alliance
4.	Jim Notestine
5.	Laurie Fulkerson, Forest Guardians
6.	Sally Stefferud
7.	Jerome A. Stefferud
8.	Richard Collins

Responses are organized by letter number and comment number (e.g., the comment coded 1-1 came from Jeff Burgess and was the first comment).

Comment 1-1: The implementation of Alternative 4 would require the expenditure of \$9,500 to build new fences and livestock watering devices so that just 31 head of cattle could resume grazing the allotment. Your original proposed action, Alternative 3, would allow more grazing the allotment's important riparian habitat, but it would still cost \$5,500 so that just 53 head could resume grazing. I was glad to read that all of these costs would be born by the permittee. But it makes me wonder why the permittee would be willing to make these expenditures for so few cattle. Are these expenses really going to be paid by the permittee, or is the permittee planning on obtaining some sort of state or federal grants to pay for them? If so, your proposal to allow grazing to resume on this allotment is a poor deal for the taxpayers.

Response 1-1: This comment applies to the Kunde allotment. The Forest is not aware of any outside funding sources for improvements on this allotment.

Comment 1-2: The EA describes the currently permitted numbers, and the proposed permitted numbers. It also includes the recent actual numbers, so that some useful comparison can be made. But it fails to mention what the average annual forage utilization levels were for those actual use numbers. Without this information, it is impossible to assess whether or not it's realistic to expect that your proposed permitted cattle numbers will result in the allowable use levels you are proposing. What were the actual average annual forage utilization levels in the recent past?

Response 1-2: Forage utilization on the Seibold and Crittenden allotments is monitored annually by the Forest Service and the permittee. Recent utilization reports are included in the project record (Docs. 14, 63, 65, 69) and are summarized below. On the Seibold and Crittenden allotments, the permittee monitors use in key areas in uplands and riparian areas regularly throughout the grazing period in each pasture. Livestock are rotated when monitoring indicates that allowable use levels are being approached. As shown in the table, utilization has remained under 45% for the past three years. The proposed stocking is based on the best available estimates of forage conditions and capacity. Monitoring will be used to adjust numbers and season of use, depending on future conditions.

Pasture	1999-2000	2000-2001	2001-2002
Crittenden	41	--	14
Red Bear	43	32	33
Oak Grove	34	34	25
Corral Canyon	--	--	35
Moonshine	--	--	32
East Redrock	37	39	25
West Redrock	28	35	<10

Comment 1-3: Furthermore, the EA explains that the Papago allotment is currently permitted for 400 cattle yearlong (CYL), but that the recent actual use was 225 CYL until 1999, when the allotment went into non-use. This year, it explains, a new permittee is grazing just 50 head. The EA also documents some resource problems on this allotment, but despite this fact, and the fact that the historical actual use was only 225 head, you are proposing to permit 250 CYL on this allotment. The EA says there were production and utilization studies completed on the other allotment, but there’s no mention of one for the Papago allotment. If you haven’t completed a capacity estimate for this allotment, and the recent actual use was only 225 head, then why are you proposing to permit 250 head?

Response 1-3: No recent production and utilization studies are available for this allotment. The primary resource problems identified on this allotment were related to poor livestock distribution and overuse in some pastures as a result of failure to maintain improvements and inadequate monitoring. Under the proposed action/preferred alternative, the maintenance and existing developments and construction of new facilities are expected to result in improvements in distribution. Full stocking is contingent on the completion of improvements. Monitoring will insure that allowable use is not exceeded and annual operating instructions will be used to adjust stocking consistent with capacity and to provide pasture rest. The proposed permit number represents a 37.5% reduction in the permit and results in a stocking rate of 4.1 acres per animal month (acres/AM), which is within the range (generally 3-6 acres/AM) suggested in the NRCS Ecological Site Guides for range sites within the allotment.

Comment 1-4: The EA also explains that 45 of this allotment’s 68 “structural range improvements” are in need or repair or reconstruction. I was glad to read that the estimated cost of \$25,750 will be born entirely by the permittee. By why haven’t you tied any increases above the current 50 head on the allotment to the completion of these

livestock management devices? And, as I've already mentioned above, will the permittee really be paying for these things, or will it be the taxpayers paying through some sort of grants disguised as natural resource protection projects?

Response 1-4: The projected increases in stocking can only be accomplished after the necessary improvements are in place. Annual permitted use will be set through annual operating instructions based on the ability to use given pastures. The permittee has indicated a desire to complete many of the proposed projects as soon as possible, but has been required to hold off pending the completion of the NEPA analysis. No outside sources of funding have been identified.

Comment 1-5: Another issue regarding the Papago allotment is the plan to allow the entire herd to cross through the riparian enclosure along O'Donnell Creek for "1-2 days, once or twice per year" so that cattle can move between the two pastures of the allotment's Z-Triangle unit. The EA says that, "Because of the limited duration and extent and infrequent occurrence, the effects of this action are not anticipated to impair the development of the riparian community in O'Donnell Creek." Really? I have a difficult time believing that allowing up to 250 head of cattle to trample through the creek won't create a big mess. Have you formally consulted with the U.S. Fish and Wildlife Service regarding the effects this activity will have upon the creek's condition? I suggest that you consider dropping the allotment's Roundup pasture from the grazing rotation, so that this crossing won't be necessary.

Response 1-5: The O'Donnell Creek enclosure fence was constructed in 1997 to exclude livestock from a perennial stretch of O'Donnell Creek in order to protect habitats for the Canelo Hills ladies tresses and the Huachuca water umbel. The Biological Assessment (BA) prepared for the proposal included the provision to move up to 75 (not 250) head of cattle through the enclosure twice a year using the most direct route between gates located at the lower (northern) end of the enclosure. The US Fish and Wildlife Service concurred that the proposed action may affect but is not likely to adversely affect the Huachuca water umbel and the Canelo Hill ladies tresses provided the Forest established "a direct route for driving the livestock across the enclosure from pasture to adjoining pasture" (AESO/SE 2-21-97-I-360, Doc. 115). No determinations were made for Gila chub because the species was not listed or proposed at the time.

The 2002 conference opinion contained in the Forest-wide grazing BO (Doc. 103) contained a determination of "no jeopardy" for the Gila chub in O'Donnell Creek and was issued with an incidental take statement that included reasonable and prudent measures and terms and conditions to minimize the take of Gila Chub (Doc. 103). The BO is silent on the issue of moving livestock through the enclosure as described in the EA and the previous BO. However, it defines take of Gila chub through grazing impacts as "grazing within the enclosure at a level resulting in more than five percent utilization of woody riparian species (measured as percentage of apical meristems within 2 m (6 ft) of the ground grazed) and trampling, chiseling or other physical impact by livestock on more than 10 percent of the alterable streambanks by length", and as such, appears to anticipate some level of authorized or trespass livestock use within the enclosure. The

reasonable and prudent measures and terms and conditions included in the 2002 BO were not included in their entirety in the EA, but are contained in the project record at 103. The Forest is required to comply with these terms and conditions in order to remain in compliance with Section 9 of the Endangered Species Act.

Finally, given the location of the crossing point downstream from occupied habitats and the short duration of use, it is the Forest's opinion that impacts will remain well below the threshold of take specified in the BO. Nevertheless, a BA for the proposed action has been prepared and submitted to the US Fish and Wildlife Service for formal consultation. Their biological opinion is pending.

Comment 2-1: I propose alternative 1 (no action/no grazing). This would be the fastest way to get all the public land back to good watershed health. I don't see any advantage to the tax payers to spend money for improvements on public land that mainly benefits the cow farmer. A person who raises cows on public land already gets a large subsidy from us federal tax payers. This person only pays a ridiculously small amount of the fair market value of the public feed used.

Response 2-1: In general, the EA discloses that Alternative 1 would result in the greatest improvement in watershed condition over the life of the project. As noted on page 50, the permittees have been notified that they will likely have to bear the costs of range improvements. The market values of public lands grazing fees are a policy matter and are set by Congress. As such, they are beyond the scope of this analysis.

Comment 2-2: The wildlife habitat for hunting and viewing would be greatly improved by adopting the no grazing alternative. It also would help the water table which is much more beneficial to all taxpayers. These allotments have much more value to the tax paying public for their recreation value than to be trashed with grazing cows. Every study I have seen indicates that public land produces more money to the economy when used for recreation than any other use. I hope my input will help to do what is right for the taxpayer.

Response 2-2: Thank you for your comment. Use of Forest Service land for the grazing of livestock does not preclude opportunities for hunting and other outdoor recreation. That is, they are not mutually exclusive activities and can be compatible under proper management.

Comment 3-1: The EA states on p. 9 and 10 of the Proposed Action, under each allotment heading, that Mearns' quail key areas on Map 9. We do not have Map 9, Sierra Vista district does not have Map 9, and as we discussed on the telephone on 2 June 2003, there is not a list of designated Means' quail key areas that the public could identify.

Response 3-1: Map 9 was inadvertently left out of the EA, but is included in the project record (Doc 113) and is attached to this response. We apologize for the oversight.

Comment 3-2: The EA states on p.42 under Environmental Effects that Mearns' quail "key habitat areas" have been identified and are on Map 7. We believe this is a typographical error and should say Map 9. However, Mearns' quail key areas have not been defined-and there is no Map 9.

Response 3-2: You are correct; the reference should be to Map 9, which is attached. The reference should have been to "Mearns' quail high density habitat" rather than key areas, since these have not yet been identified. Also see Response 3-3, below.

Comment 3-3: We suggest that the decision notice include an expected timetable for Mearns' quail key areas to be established. We recommend that the Coronado consult with the Arizona Game and Fish Department and the Western Gamebird Alliance in the establishment of these key areas. We think having WGA and AGFD involved on the ground when these areas are selected is important and will lead to a cooperative understanding. The goal should be a list of Mearns' quail key areas, easily identifiable through the use of GPS and map, which WGA and AGFD can monitor on a more frequent basis.

Response 3-3: We agree. Specific locations for Mearns' quail key areas have not yet been identified, but will be selected prior to initiation of grazing activities, if they occur. The Coronado National Forest Manual Supplement No. 2630 directs the Forest to identify Mearns' quail key areas "with input from the Arizona Game and Fish Department, the grazing permittee and other interested parties". We would welcome the participation of the WGA in this process and will keep you informed.

Comment 4-1: While I would primarily prefer the No Action/No Grazing Alternative 1, I realize it is politically impossible at this time and there are some ranch livelihoods to consider. Therefore I will support Alternative 4 as the best Alternative that continues grazing. The new exclosures, CYL reductions and range improvements in this alternative give much needed management improvements over current management to some biologically important areas. I think you should consider extending the No Use period for the Papago allotment a few more years, especially with the current drought impacts. That allotment needs a lot of "healing." The Crittenden allotment should be monitored carefully, it is a good candidate for some rest years, especially if the drought continues.

Response 4-1: The permittee on the Crittenden allotment is actively involved in monitoring in cooperation with District Range Staff. Monitoring information is used to determine the timing of pasture moves throughout the year. Active involvement by the permittee is precisely what is needed in order to assure successful implementation of an allotment management plan.

Comment 4-2: The EA is sparse on details of what monitoring will actually be done and on what timetable. My experience with the USFS is that much promised monitoring is not completed. I understand your budget constraints but grazing like other uses is a privilege and not a right. If monitoring is not adequately funded then grazing should be

discontinued. Please do follow through with your commitment to monitor and assess the effects of livestock herbivory on flowering agaves. I have seen severe cases of that on allotments in the Big Casa Blanca drainage north of Hwy 82. A herd of 60 cattle consumed over 80% of the agaves and yuccas on 200 acres in two weeks where I live (Casas Arroyo near the four allotment). I believe livestock herbivory on agaves, yuccas and beargrass is much more than most ranchers will admit, and the impacts to wildlife are considerable.

Response 4-2: Consistent with our commitment under the Biological Opinion for ongoing and long-term livestock grazing, the Forest has established agave monitoring locations within the project area and has begun monitoring. Monitoring of riparian areas on the Seibold and Crittenden allotments has been accomplished since 1998 (Docs. 65, 69, 78, 89) and will continue. Between 1989 and 2001, aquatic habitats in the project area were monitored using repeat photography to document changes in Gila topminnow habitats in Redrock Canyon (Stefferd 2002, Redrock Canyon Photopoint and Aquatic Habitat Survey, Doc. 101). Additional monitoring of forage utilization will be identified in the Decision Notice.

Comment 4-3: We are entering the fifth year of what may prove to be a much longer drought. Estimates vary from 20 to 225 years, the latter coming from a USFS funded document. Other than stating the percentage of forage consumption to be allowed on different allotments and pastures, nothing addresses how drought will be dealt with. Your percentages allowed may be acceptable for normal precipitation cycles but too high for drought periods. My experience on most USFS allotments in the Sonoita/Patagonia area is, actual forage utilization is much higher than what was to be permitted. Part of the problem is that most ranches in this area are cow/calf operations which do not allow much economical flexibility to vary grazing levels from year to year.

Response 4-3: The Coronado National Forest Drought Policy (Doc. 116) requires the Forest to work with permittees to reduce livestock pressure when rainfall for the water year (beginning October 1) is less than 75% of normal by March 1. We will continue to work within this policy as necessary.

Comment 4-4: The 2700+ acre Redrock fire that occurred after this EA was distributed will require CYL adjustments/reductions from this plan for 2 or 3 years. I'm sure you are already discussing this. I have not been on the ground there yet to look at that impact.

Response 4-4: A Burned Area Report has been completed for this area. The report recommends one to two years of rest from grazing for the burned area.

Comment 5-1: The EA reports that many riparian areas on the allotments...are in degraded condition (e.g. unsatisfactory condition of Cienega Creek, Redrock Canyon, Lampshire Canyon and Alamo Canyon), yet it proposes to continue grazing on these allotments despite clear evidence that grazing is the primary factor causing the degraded condition of these areas.

Response 5-1: It is evident that historic grazing levels contributed to degradation of riparian areas on the allotments. However, since 1991 reductions in grazing levels and several improvements implemented as part of the Redrock Action Plan have begun to reverse this trend. Additional exclosures, upland waters and fences identified in the EA are expected to continue this trend by reducing use in riparian areas.

Comment 5-2: The most recent Forest Service utilization study estimated capacity well below that which is currently permitted on the Seibold allotment, yet the Forest neglects to reduce numbers in the EA.

Response 5-2: There are two approaches to estimating grazing capacity. The “forage inventory” approach assigns capacity based on measurements of forage production collected over a period of 1-3 years. This approach is used to calculate the capacities displayed in the text and provides a useful baseline for initial stocking rates. A second approach, “stock and monitor” involves the measurement of stocking levels over time on utilization, vegetation soils and other factors. Ideally the two approaches are used together to refine and adjust stocking based on current conditions and management goals.

The Seibold and Crittenden allotments are managed as one unit with a combined “forage inventory” capacity of 205 cows yearlong (cyl), based on production and utilization studies. The permittee maintains a base herd of 165 cows on the two allotments, combined, which allows for a drought reserve. Actual stocking has been 151, 155 and 174 cyl for the past three years, based on the “stock and monitor” approach that indicates that current conditions do not support full stocking. The combination of the allotments increases the number of pastures and management flexibility. Monitoring (see 1-2) indicates that the allotments have been able to support these numbers without exceeding allowable use in any pasture.

Comment 5-3: The Forest Service claims that there will be no adverse cumulative effects to water quality, but makes this determination based on a lack of information (EA at 58). However the Forest Service stated that serious erosion problems are occurring on the Papago allotment which are directly attributed to a combination of poor livestock management and off-road vehicles. Thus, the Forest Service’s conclusion that water quality on these allotments will not be detrimentally affected is flawed.

Response 5-3: The proposed action and all alternatives incorporate Best management Practices (BMPs) determined by the Arizona Department of Environmental Quality (ADEQ) to be the most effective and practicable methods for reducing possible cumulative pollutant loadings which could adversely affect local water resources and the designated uses they support (EA page 58). Suggested practices include the following:

1. Construct fencing to exclude cattle from vulnerable riparian habitat;
2. Apply rotational scheme in grazing management;
3. Provide water diversions and alternate water sources to attract cattle away from water bodies and associated riparian habitat;
4. Periodically herd cattle to redistribute livestock;

5. Place salt, food supplements or shade away from water bodies and associated riparian habitat; and
6. Implement rangeland improvement strategies like revegetation, prescribed burns, etc. to help restore grazed areas.

The proposed action and alternatives are consistent with these BMPs (EA page 8-10, 13-17). With respect to the Papago allotment, nearly all of the proposed actions are intended to reduce the effects to soils that have occurred in the past. A copy of the EA has been provided to ADEQ.

Comment 5-4: The EA must analyze a range of reasonable alternatives and must take a “hard look” at alternatives that not only emphasize different factors, but also lead to differing results.

Response 5-4: The primary purpose of an EA is to determine if significant effects are present, thus triggering the need to disclose these effects in an environmental impact statement. Evaluation of the Current Management alternative against the No Action/No Grazing alternative provides adequate representation of a range of effects. The Proposed Action/Preferred Alternative produces effects within that range. The environmental consequences of the alternatives are compared on pages 20-61 of the EA.

Comment 5-5: The EA must consider and disclose adequately the cumulative impacts of the proposed action.

Response 5-5: Cumulative effects are addressed in the EA and specialist reports included in the record (EA pages 30, 35, 49-50, 58 and 59; documents 100 and 107).

Comment 5-6: The EA must consider and disclose adequately the location and protocol for monitoring key forage utilization areas within the allotment.

Response 5-6: With regard to Mearns’ quail key areas, please see 3-1 through 3-3. Key species will be identified in the Decision Notice, as will the monitoring protocol. Grazing key areas are to be established in accordance with the Region 3 Rangeland Management and Training Guide; however, there is no specific requirement to identify these areas in the EA.

Comment 5-7: The EA must determine whether riparian habitats on the allotments are meeting Forest Plan guidelines.

Response 5-7: Standards and Guidelines for riparian habitats are found on page 39 of the Forest Plan. Riparian habitats in Redrock Canyon and Lampshire Canyon were assessed in 1999 using a combination of proper functioning Condition and RASES methods and results are summarized in the EA (pages 20-25).

Comment 5-8: The Forest must comply with NFMA by evaluating the allotments’ suitability for grazing.

Response 5-8: This is outside the scope of the analysis. The Code of Federal Regulations (36 CFR 219.20) requires the Forest Service to conduct determinations of grazing suitability at the Forest Plan level, not on a site-specific basis. The Coronado Forest Plan classifies the lands in the project area as suitable for grazing.

Comment 5-9: The term permit issuance must be suspended until the Forest revises its land and resource management plan and until the Forest develops a Renewable Resources Program. This suspension is necessary because the goals, objectives, standards and guidelines are no longer relevant or defensible in light of significantly changed resource conditions.

Response 5-9: Language contained in the Consolidated Appropriations Resolution of 2003 specifically addresses this issue: “Sec. 320 REVISION OF FOREST PLANS. Prior to October 1, 2003, the Secretary of Agriculture shall not be considered to be in violation of subparagraph 6(f)(5)(A) solely because more than 15 years have passed without revision of a plan for a unit of the National Forest System.” The Forest will be beginning plan revision in 2004.

Comment 5-10: Population survey data is needed to ensure the maintenance of minimum viable populations of wildlife.

Response 5-10: A Forest-wide report of management indicator species population trends was completed in 2002 and is included in the project record (Doc. 117). At the project level, effects to management indicator species have been assessed and are displayed in the project record at 98 and summarized in the EA.

Comment 5-11: Virtually no background ecological information is provided in the EA, including the proposed action. At the very minimum, you need to determine the potential natural community of vegetation on this allotment.

Response 5-11: There is no specific legal obligation to determine the potential natural vegetation. Existing resource conditions are described in several places including Table 1 on page 5 and in several places in the Environmental Consequences section under the heading Affected Environment (pages 20-61).

Comment 5-12: It is a violation of the Endangered Species Act to issue permits for grazing without conducting a biological Assessment to determine the impacts of permit issuance on federally listed and proposed species that may be present in the project area.

Response 5-12: A project level biological assessment has been prepared and was submitted to the US Fish and Wildlife Service in May 2003. In addition, the proposed action for the four allotments was evaluated in the 2002 Forest-wide consultation on long term and ongoing livestock grazing. The US Fish and Wildlife Service opinion AESO/SE 2-21-98-F-399-R1 on this consultation was issued October 24, 2002.

Comment 5-13: The EA makes hardly any mention of the existence of or critical role of cryptogamic soils, especially in the pinyon/juniper woodland ecosystem type.

Response 5-13: The analysis area does not contain any pinyon/juniper woodland. Approximately three quarters of the analysis area is Madrean oak woodland, with desert grassland, plains grassland, chaparral and riparian comprising the remainder. While found in this area, cryptogamic crusts were not thought to be an issue in this vegetation type. A recently published report of work done on the Tonto National Forest on the ungrazed Dutchwoman Butte (an area described as a grassland with woodland indicators) states that cryptogamic crusts were scarce and they face “intense competition with vascular plants” (Ambos, et. al. Dutchwoman Butte: A relict grassland in central Arizona. Rangelands. April 2000).

Comment 5-14: We believe that it is scientifically unsound to build upland waters in ponderosa pine or mixed conifer forests without – at a minimum – reducing livestock numbers.

Response 5-14: There are no ponderosa pine or mixed conifer plant communities within the project area.

Comment 5-15: The impacts of fence construction, continued fence presence, water developments and other livestock management associated developments should be more fully analyzed in the EA prior to the issuance of any permit.

Response 5-16: New fencing will be constructed to Forest Plan standards that allow for safe wildlife passage (EA, page 17). The construction of additional fencing and waters are intended to distribute livestock or protect aquatic habitats. The effects of these activities are analyzed on pages 20-50 in the EA.

Comment 5-16: Due to the current and historic presence of special status species, such as the Gila topminnow, riparian habitats must be fully protected from the direct and indirect effects of livestock grazing.

Response 5-16: Under the preferred alternative, the entire length of Redrock Creek in the Kunde allotment will be excluded from livestock grazing. Numerous proposed actions identified in the alternatives are designed to reduce impacts to Gila topminnow.

Comment 5-17: Cultural resource clearance is required for all “surface disturbing activities”, not just future grazing improvements. This clearance is required for the entirety of allotments included in the proposed action.

Response 5-17: A determination of the effect of the proposed action and alternatives was prepared and submitted to the State Historic Preservation Officer.

Comment 6-1: 1. The draft EA provides most needed information, but portions of the analysis are faulty and in need of substantial work. Missing pieces of information and

contradictory information is discussed under specific comments. Assessments such as this are supposed to layout information and then use it to make logical deductions and inferences regarding the potential outcomes of the proposed action. The thought processes leading from the facts to the conclusions are as important to the reader as beginning and ending point. In many cases, this draft EA fails to include the necessary descriptions of the methods and thought process, leaving the impression of unsupported conclusions. As a result many conclusions appear to be illogical and/or arbitrary and capricious. Some leaps of logic appear to be contradictory, such as the assumption that continuation of the status quo utilization rate (45%) in Mearns quail habitat will "provide additional herbaceous cover." No basis or argument for this amazing statement is given.

Response 6-1: Please refer to our responses under your specific comments. With regard to Mearns' quail, under all alternatives, the Mearns' quail manual supplement direction described on page 16 of the EA will be adhered to. If monitoring shows that desirable use levels are being exceeded, management will be changed to reduce utilization.

Comment 6-2: Additional Section 7 consultation for Gila topminnow is required for all alternatives considered. In the draft EA the Forest Service (USFS) indicates it will enter additional section 7 consultation with the Fish and Wildlife Service (FWS) regarding effects to Gila topminnow only if the Redrock pasture of the Kunde allotment is not included in the grazing action. This will not meet the requirements of the Endangered Species Act.

The USFS has apparently misunderstood the 1999 consultation and biological opinion, which analyzed proposed grazing on the Seibold, Kunde, Crittenden, and Papago allotments, for only a 3-year period. For that analysis, it was considered that grazing would not continue beyond July 2002, because no USFS decision to continue grazing beyond that date was yet being considered. Therefore, grazing impacts analyzed in the 1999 document are limited to only those that occurring in three years (*sic*). Any impacts from extending grazing beyond that date were not included in the analysis. This highly limited scope of action and analysis gave a substantially different conclusion than if it included an intention of grazing beyond the 3 years - i.e. a proposal to graze for 3 more years and then quit results in quite different effect conclusions than a proposal to graze for 13 more years (the 3 year 1999 scope plus this proposed 10 year scope). We are all well aware that livestock grazing effects to streams and fish are accumulative over time, so that the period of the analysis is critical to the conclusion. As the biologist who did the analysis for Gila topminnow in the 1999 biological opinion, I attest that my recommendation for a nonjeopardy finding (which was accepted for the final biological opinion) for that species was based to a major extent on the limited scope and time of the proposed action. If the 1999 consultation had included analysis of an additional 10 year grazing period, as proposed in this EA, my recommendation would have been for a finding of jeopardy to Gila topminnow.

The 2002 biological opinion used the analysis of the 1999 biological opinion, in most cases verbatim. However, it was left unclear what time frame this biological opinion was analyzing. Since the analysis used was specifically written for a 3-year time period, it

would appear that the 2002 analysis considered an additional 3-year grazing period. Unfortunately, following the analysis, the 2002 opinion lays out a three point statement of the basis for the conclusion, and each of those statements is based on faulty data and are all incorrect. Despite discussion within the opinion regarding the inadequate outcome of the Redrock Action Plan, the 2002 biological opinion states that implementation of that Plan is adequate for Gila topminnow conservation. It also states that exclosures exclude cattle from all occupied habitat in Redrock Canyon. In fact, there are several areas of occupied habitat that are not excluded and are subject to direct livestock use. The third point is that only one Gila topminnow "site" will be affected by the proposed action. However, contradictory information in the opinions discussion includes adverse effects to three Gila topminnow populations (as opposed to the several "sites" within Redrock Canyon itself). Given these serious and highly challengeable flaws in the 2002 biological opinion, it would behoove the USFS to choose conservatively in favor of a new and more site-specific consultation and biological opinion.

Response 6-2: On April 18, 2002 the Forest requested reinitiation of consultation on ongoing grazing for a period of ten years for all allotments except the Kunde, for which a period of one year was specified. The duration of the consultation stated on page 9 of the Biological Opinion (2-21-98-F-399-R1) is ten years. The 1999 BO was superseded by the 2002 BO (BO, page 3).

The Forest has requested formal consultation with the US Fish and Wildlife Service for the Kunde allotment as anticipated in the BO. Further, the Forest Service evaluated the proposed action/preferred alternative against the reinitiation criteria found at 50 CFR 402.16 and determined that formal consultation would be required for the Papago allotment because the proposed action was modified from that described in the Forest-wide consultation. We have requested formal consultation for this allotment. For the Seibold and Crittenden allotments, the proposed action remains the same as that described in the Forest-wide consultation and we have concluded through informal consultation with the Service that additional formal consultation will not be required. Nevertheless, we have prepared a Biological Assessment describing effects to listed and proposed species on all four allotments and have provided that information to the Service. We are awaiting the BO from the Service.

Comment 6-3: Characterization of the proposed action (including all alternatives) is misleading to the public, although bureaucratically accurate. On the Kunde and Papago allotments it is important to a full understanding of the effects of the decision to be made here, to know that in the real world, as opposed to the paperwork world, a decision to graze is a significant backward step in resource condition. The draft EA implies that livestock grazing on these allotments will simply be a continuation of the status quo, with some predicted improvement. It should be clearly stated that conditions on these allotments have improved over the past several years of no grazing on those allotments and that the baseline condition for this decision is not the condition under earlier grazing, but instead the condition under no grazing. This difference is important because using one baseline the predicted outcome is resource improvement while using the other the predicted outcome is resource degradation.

A major purpose of a draft EA is full disclosure to the public of the basis of Federal decisions. It is not in keeping with that purpose to use technically accurate, but misleading portrayals of the proposed action. Having been a bureaucrat, I understand that the misleading nature of the proposed action and alternatives description in this EA is not intentional, but rather simply that the preparers are too close to the subject to understand how it fails to inform the reader of the actual on-the-ground conditions and proposed actions. This problem of a technically accurate, but in reality incorrect, portrayal is inherent in range decisions, where analyses and decisions are based on what was permitted and supposed to occur, versus what actually occurred, which biases many parts of the analysis. However, the main point is that the EA should carefully distinguish between the 1999 decision to continue grazing the Kunde and Papago allotments versus the reality of no grazing on those allotments in the intervening period.

Response 6-3: This is a valid point that underscores the hazards of spreading the analysis over a long period of time, in this case five years. Rangeland vegetation and trend were assessed on the allotments in 1998. The Seibold and Crittenden allotments were reassessed in 2001; however the 1998 data were used to describe the “existing condition” in the EA. The 2002 data are referenced in the discussions for these allotments, primarily to document the effects of the current and proposed action; however the maps and tables are based on 1998 data as a baseline. Likewise, riparian areas were assessed in 1999 and this information was used as the baseline in the assessment, even though additional monitoring has occurred since that time. Therefore, the baseline data for the Crittenden, Seibold and Papago allotments describe conditions under active grazing. The baseline for the Kunde allotment describes conditions after two years of non-use and this fact is disclosed in the EA (page 33 and elsewhere).

Comment 6-4: Utilization rates greatly exceed Forest Plan guidelines.

The proposed utilization rates of 45% on key species (which are unidentified) and 30% on riparian trees and shrubs are excessive, although at least they are better than the 1990 levels of 55%. Not only do they exceed utilization rates for this type of country recommended in published literature by acknowledged range experts, such as Jerry Holechek, but they are substantially higher than the guidelines in the Forest Plan. I am aware that the Forest Plan guidelines can be superseded by site-specific information. However, nothing in the data on range, vegetation, soils, and watershed condition in this EA appear to support such large increases in utilization rate over the Plan guidelines. The EA should provide rationale for such site-specific deviations from the Forest Plan. That rationale should include a discussion and line-of-logic and not just a flat statement that site-specific data supported the deviations.

Forest Plan guidelines for maximum utilization rates under the preferred alternative would be 25% for the Seibold allotment, and 35% for the Crittenden, Kunde, and Papago allotments. (Current Coronado National Forest range condition nomenclature differs from that in the Forest Plan, with equivalents being very poor/poor = low, fair = moderately low, good = moderately high, and excellent = high.)

In addition, within the four allotments, areas of chaparral within management area 4 are to be grazed at management level B, for which the Forest Plan prescribes 25% utilization levels. Areas of grassland are to be managed at level C, with 30-35% utilization. Only woodland or combined grassland/woodland are to be grazed at level D, which allow up to 55% utilization. The present proposed action does not meet these Forest Plan standards under any alternative except the no-grazing.

Response 6-4: Utilization rates recommended in the research literature refer to pasture-wide averages, averaged over time (Holechek 2000, Holechek and Galt 2000). The proposed management requires monitoring relative utilization in key areas on key species and moving cattle if utilization approaches 45% (35-40% in Mearns' quail key areas). Key species are those that are preferentially consumed by cattle. Depending on management objectives, key areas may be representative samples of a larger area such as a pasture or they may be representative of a smaller area with important resource values (e.g. Mearns' quail key areas). In either case, key areas are chosen to be representative of those areas where cattle are likely to graze. Utilization measurements are typically made at the end of the grazing period. In some cases, such as on the Seibold and Crittenden allotments, utilization is monitored throughout the year and serves as a basis for determining the timing of pasture rotations. By limiting forage use to 45% of current year's growth on key species in key areas, Forest range specialists believe that the proposed management will result in overall pasture use and overall forage use of less than 45% on an annual basis. Further, all of the allotments considered in this analysis are grazed or are proposed to be grazed in some form of rest-rotation. Pastures will be provided summer growing season rest every other year, or in some cases, two years out of three. The non-use in a given year will not be averaged to compute an average utilization across years.

Notwithstanding the preceding, grazing management will be focused on achieving the desired conditions stated on pages 7-8 of the EA. If monitoring indicates that the desired conditions are not being achieved, management will be adapted.

Comment 6-5: Range conditions on the four allotments are still poor despite significant management improvements and livestock removal on two of the allotments. In 1990, range condition on the Seibold allotment was believed to be low, but improved to moderately low by 1999 where it is believed to remain despite substantially improved livestock management. On the Crittenden allotment, range condition in 1999 was stated as moderately low, but has moved to moderately high (60% of the area) by this EA. The Kunde allotment was in low condition in 1990, moderately low in 1999, and moderately high (56%) today, probably reflecting the complete rest from livestock for the past 7 years. The Papago allotment was in moderately low condition in 1999 and is now believed to be in moderately high (77%) condition, also probably due to complete livestock removal for 4 years.

These generally upward trends are encouraging and support the Forest Service's earlier decisions to decrease grazing levels and/or increase management. However, it must also be recognize that on the Kunde and Papago allotments they do not reflect USFS actions

so much as the happenstance of the permittee not grazing livestock on the allotment (nonuse) for reasons that do not necessarily relate to the resource. If the USFS decision to continue grazing these allotments had been implemented, rather than the permittee's nonuse, then range condition on these allotments would likely be substantially less than at present.

Although trends are upward, range condition is still only moderately low (fair) to moderately high (good). All of these allotments support endangered, threatened, and candidate species, as well as other natural resources that make the area a world-class natural resource. While a fair to good range condition may be acceptable for mundane areas of little rarity, it is an unacceptable condition for this outstanding area of great rarity.

Response 6-5: It appears the 1999 data you cite were taken from the 1998 Forest Biological Assessment of ongoing and long-term grazing and the subsequent 1999 US Fish and Wildlife Service Biological Opinion. The range condition and trend data used in these analyses were taken from a database created for the Forest Plan revision in 1997. The condition data were based on the 1990 Regional General Ecosystem survey and updated by District Range Specialists. These data were rather broad scale for use in the Forest-wide assessment. The environmental baseline for range condition in the EA is based on site-specific assessments completed in October 1998 and is considered more accurate. The data are not comparable because they were made at two different scales. The tables in the EA are not intended to show past trends; rather they are intended to show predicted changes in condition as a result of implementation of the alternatives. The differences in condition ratings are more a reflection of a finer level of analysis than any real trend. Notwithstanding this, assessments in 2001 on the Seibold and Crittenden allotments showed notable improvements in range condition over the 1998 levels, as documented in the EA (pp. 31-32). Also see Response 6-3.

Comment 6-6: Soil conditions improvements reported since 1999 are striking on some allotments, but there appears to be little data to support these contentions. The Seibold allotment went from 19% satisfactory in 1999 to 22% in 2003, which was not a significant change. However, the Crittenden allotment is reported as going from 51 % satisfactory in 1999 to 71 % today, a remarkable change in such a short time. The Kunde allotment improved from 53% satisfactory in 1999 to 63% today. On Papago allotment the soils went from 17% unsatisfactory in 1999 to 49% at present. I would expect this seemingly miraculous improvement on Papago to inspire some explanation in the EA, however, it is neither mentioned nor explained. In a meeting in 2001, while still FWS employee I asked for an explanation of the data that supported this dramatic trend. In the meeting I was told that no new data existed, but after the meeting I was privately informed that information from one new soil pit had been used.

Response 6-6: As discussed under 6-5, the soil condition ratings you cite appear to have been derived from the 1999 BO, which was in turn based on a 1990 General Ecosystem Survey conducted at the Forest level. The assessment of soil quality found in the EA is based on site specific surveys completed in 1999, following methods outlined in FSM

2309.18 Soil Management, R-3 Supplement No. 2509.18-99-1 (EA page 56). There is no intention to display trends in soil condition in the EA, because the two data sets are not comparable.

Comment 6-7: Riparian conditions, upon which many of the endangered, threatened, and candidate species depend, are overwhelmingly unsatisfactory, although improving. This condition threatens the survival and recovery of several endangered and threatened species. The Endangered Species Act requires all Federal agencies to "utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species." Conservation is defined as not just prevention of extinction, as required under section 7 consultation, but also including recovery of the species. The USFS is required by the Act to go far beyond the section 7(a)(2) requirements of nonjeopardy, to actually create upward trends and recovery of the species. It does not appear to be in keeping with those requirements to maintain occupied, suitable, and potential habitat of Gila topminnow, Huachuca water umbel, Canelo Hills lady's tresses, Sonoran tiger salamander, Chiricahua leopard frog, and Gila chub in a perennially unsatisfactory condition, as this EA proposes. Riparian conditions on these allotments have been unsatisfactory since I began working there in 1988. They have been improving during those 15 years, but are still unsatisfactory. It has been repeatedly pointed out to the USFS that the degraded riparian and stream conditions are threatening the survival of Gila topminnow and are preventing recovery of that critical population, including the FWS 1999 and 2002 biological opinions.

Riparian and stream channel improvement in the Redrock Canyon basin has been almost entirely due to exclusion of livestock. The Cott Tank, Gate Spring, Pig Camp Springs, and Falls exclosures have seen significant improvement, as the Stefferud data indicates. In addition, the non-exclosed areas within the Kunde allotment have undergone much improvement during the 7 years when livestock have been removed, although significant trespass grazing occurred for 2 years after official livestock removal. Improvement within the recently exclosed Redrock Canyon area in West Redrock pasture was due primarily to intensive efforts of the permittee. Those efforts were so time-consuming that the permittee himself requested the exclosure. This information gives us a strong basis for concluding that significant riparian and stream channel improvement is possible and feasible only with complete livestock exclusion. Thus any alternative that does not remove livestock use from the Redrock pastures of the Kunde allotment is unacceptable and seriously adverse to Gila topminnow. In addition, the preferred alternative should, at a minimum, close the East Redrock pasture of the Seibold allotment to remove livestock use from the occupied and migration habitat of Gila topminnow in Redrock Canyon mainstem and lower Oak Grove Canyon.

The 1999 and 2002 biological opinions says "continuation of essentially the same permitted livestock grazing and management, as proposed here, would not seem to promise sufficient and rapid enough improvement in the overall degraded range, riparian, and watershed conditions in Redrock Canyon to avoid ongoing adverse effects to Gila topminnow which inhibit their recovery and may compromise their survival."

In addition, the biological opinion cites an Arizona Game and Fish Department conclusion that "In spite of considerable dollars that have been spent by the Forest to manage the area with consideration for the species, management is still inadequate to provide the necessary habitat attributes for long-term maintenance of the species." Despite these statements, the biological opinions found that the proposed grazing would not jeopardize the continued existence of Gila topminnow. This apparent contradiction was due, as explained above, to the short time period in which the grazing would occur and instructions to assume that grazing would cease at the end of the 3 years period. The present draft EA sets out a proposed action that is very similar to the one under consultation in 1999. Significant changes include the stream enclosure in West Redrock pasture in the Seibold allotment and the closing of the Redrock pasture in the Kunde allotment. However, the grazing time period is over 3 times longer than that analyzed in 1999.

Response 6-7: As your comment documents, the Forest has been actively involved in activities designed to improve riparian conditions and protect Gila topminnow habitat in the Redrock Canyon drainage, most notably the Redrock Action Plan (Doc. 3). You are correct that these activities have primarily involved the exclusion of livestock. The preferred alternative includes provisions for additional spring protection for Corral Canyon Spring and Alamo Spring on the Crittenden allotment and complete enclosure of the Redrock pasture on the Kunde allotment. Additional waters are proposed in order to minimize the concentration of cattle around remaining unfenced water sources. Monitoring data indicate that riparian conditions have improved since 1990, and we believe that activities proposed will contribute to this trend.

Comment 6-8: I support alternative 1 for all portions of these allotments within the Redrock Canyon watershed. I support the preferred alternative, with alterations, for the areas of these allotments outside of the Redrock watershed.

I support the Fish and Wildlife Service's 1999 and 2002 biological opinion conservation recommendations that the Redrock Canyon watershed be closed to livestock grazing. The reasons for this are clearly outlined in those biological opinions and in the 2001 *Summary of Management Options and Vision Statement for Redrock Canyon Watershed* jointly prepared by USFS and FWS biologists. These documents should be included in the project record of this EA.

For areas of the allotments outside the Redrock Canyon watershed, the preferred alternative appears to be the least damaging of the alternatives presented. However, it has significant flaws for the Seibold/Crittenden and Papago allotments that allow unacceptable natural resource. My support of the preferred alternative is predicated on inclusion of the changes listed in the following recommendations and in the Specific Comments section.

Response 6-8: Thank you for your comment. This vision statement is included in the project record as Document 97.

Comment 6-9: The following are my recommendations for additions or changes to the proposed alternatives and the mitigation. Other recommendations may be found throughout the Specific Comments section.

Comment 6-9.1: Incorporate the August 2001 *Summary of Management Options and Vision Statement for Redrock Canyon Watershed* into the draft EA. Adopt the vision of that document into the proposed action and its mitigation. A copy of that document is attached.

Response 6-9.1: This vision statement was requested by the Forest and was used to help develop the desired conditions displayed on pages 7-8 of the EA. Many of the mitigation features described in the vision statement are in place and are incorporated into the mitigation section of the EA. Some issues, such as fish barriers and removal of dams are beyond the scope of this analysis and have not been included. We are aware of the unique biotic resources associated with the project area and remain committed to their protection.

Comment 6-9.2: Close the entire Redrock Canyon watershed to livestock grazing for the conservation of the high value and rare natural resources found there.

Response 6-9.2: This action is included in the analysis as the No Action alternative.

Comment 6-9.3 If recommendation 2 is not adopted, then exclose the entire remaining reach of mainstem Redrock Canyon from livestock grazing by closing the Redrock pasture of the Kunde allotment, and the East Redrock pasture of the Seibold allotment, and exclosing those reaches of the main stem within the San Rafael allotment.

Response 6-9.3: Under the preferred alternative, approximately 1.8 additional miles of Redrock Canyon on the Kunde allotment would be permanently excluded from grazing in addition to the approximately ¼ mile of stream in West Redrock pasture that was fenced in 2002.

Comment 6-9.4: Remove the existing corral and watering area located on the streambank of Oak Grove Canyon in East Redrock pasture of the Seibold allotment.

Response 6-9.4: This facility is necessary for implementation of management activities on this allotment.

Comment 6-9.5: Remove the existing windmill, trough, water development, and salting area in the west fork of Cienega Creek in the Middle pasture of the Papago allotment.

Response 6-9.5: This facility is necessary for livestock management activities on this allotment. We will investigate your report of heavy livestock use in this area and take appropriate action (See Response 6-14).

Comment 6-9.6: Do not use O'Donnell Canyon as a crossing for livestock.

Response 6-9.6: See Response 1.5.

Comment 6-9.7: Exclude livestock completely from Alamo Spring and Canyon to the Forest boundary. Include a buffer of upland area sufficient to ameliorate upland effects. Restore native fish to Alamo Spring and Canyon including Gila topminnow, desert pupfish, Gila chub, and longfin dace.

Response 6-9.7: See response 6-25.

Comment 6-10: page 6, para. 1, lines 1-2 and para. 3. If the capacity estimate for the Seibold allotment is only 458 animal months, why is the USFS proposing to graze at a rate 31 % higher than this estimated maximum sustainable level? If the capacity estimates are believed to be that seriously flawed, the suspected error should be discussed and a rationale for a new "data-free" capacity estimate should be given. In addition, if actual use on the combined Seibold and Crittenden averages 47% below permitted use, why not reduce the permit to close to the actual use, thus bringing the Seibold permit within the estimated capacity?

Response 6-10: See Response 5-2. Monitoring over the past few years has demonstrated that stocking at this level can be sustained when management is combined with Crittenden. Stocking on the allotments has been conservative in order to improve upland and riparian conditions that existed prior to 1997.

Comment 6-11: page 6, para. 1, line 6-7. It should be noted that the livestock enclosure fence on Oak Grove Canyon was constructed with a different downstream location than originally agreed to with the FWS, substantially reducing its value to Gila topminnow. The change was for ease of fence construction and FWS concurrence was obtained after-the-fact and only after it was accidentally discovered by the biologist. As the FWS pointed out in a December 28, 2001 letter, the new location of the downstream enclosure fence eliminated the potential for development of habitat that could be occupied by Gila topminnow through natural immigration. This should be discussed as part of the proposed project effects, and mitigation through extension of the enclosure included.

Response 6-11: As documented in the 2002 Biological Opinion (page 101, b.), the Forest has agreed to monitor habitat downstream from the enclosure for three more years. It is anticipated that sufficient topminnow habitat will have developed at Oak Grove Spring by that time. When and if this habitat becomes established, the Forest, AGFD and USFWS will jointly develop a plan to establish a sufficient amount of Gila topminnow habitat to provide connectivity between Oak Grove Spring and the Falls area or below.

Comment 6-12: page 6, para 1, line 13 and 14. I agree that improvement in riparian conditions has occurred within the West Redrock pasture. However, improvement has been very minor within East Redrock pasture with the exception of the cottonwoods that established following the 1989 flooding.

Response 6-12: Under the preferred alternative, grazing will be limited to approximately two weeks during the winter dormant season, which should lead to additional improvements.

Comment 6-13: page 6, Kunde allotment, para 1, lines 2 and 3. What is the "riparian area protection fence along Redrock Canyon" that you refer to? I remember no such fence in the Redrock Action Plan and can find no mention of it in the documents for that plan. You do not mention the enclosure at Falls - could that be perhaps what you mean by the riparian area protection fence? You also do not mention the enclosure at Pig Camp Spring, the limitation of grazing in pastures containing the mainstem of Redrock Canyon to winter only, and several road closures.

Response 6-13: The reference is to the Falls Enclosure and to the enclosure at Pig Camp Spring. You are correct that we do not reiterate all of the provisions of the Redrock Action Plan; however they have been in place for several years.

Comment 6-14: page 7, Papago allotment, para 1, line 1. The water development on the Papago allotment in Middle Pasture needs to be reconstructed to remove the intensive livestock use away from the seep spring in the channel of the west fork of Cienega Creek (sic). In our stream surveys in May 2003, we visited this area. The seep spring is heavily impacted by intense cattle use clustered around a windmill, trough, and salt blocks located on the streambank. The seep spring is compacted and eroded and all riparian vegetation was severely hedged. The spring seep and an appropriate buffer of upland should be excluded from cattle use and the water trough moved onto the uplands away from the seep spring.

Response 6-14: Thank you for bringing this to our attention. We will inspect the location and work with the permittee to correct the situation.

Comment 6-15: page 7, Papago allotment, para. 1, lines 5 and 6. It should be noted that livestock exclusion on 0 'Donnell Creek is also important for protection of the proposed endangered Gila chub *Gila intermedia*. This area, and adjacent Nature Conservancy and Audubon Society lands, were recently treated to remove nonnative fish and restore native fish, including Gila chub. It is an important native fish area.

Response 6-15: The Gila chub is mentioned in the paragraph, line 7. This fish is discussed in more detail in the EA on page 29. Also see Response 1-5.

Comment 6-16: page 7, Desired Condition. The goal of these proposed grazing permits and allotment management plans are inadequate. Given the extremely high value resources found in these allotments, particularly those within the Redrock Canyon watershed, it is not appropriate to settle for meeting the minimum range and ecological condition levels of the Forest Plan. The minimum acceptable may be appropriate for areas with low or moderate value resources of common distribution, but areas with high value, uncommon resources should be asked to exceed the minimum by a significant

degree. I suggest that the goal for these allotments, and particularly those within Redrock Canyon, must be to achieve at high (excellent) range and ecological condition. Although I believe your goals for these allotments are unacceptably low, it is still not clear that the proposed action or preferred alternative will meet those goals. Unless one defines significant detriment to Gila topminnow to include only extirpation from the area, the goals will not be met. As is clear from the 1999 biological opinion, there are significant detrimental effects to Gila topminnow from the livestock grazing program, even within a limited 3 year period. Although the preferred alternative would eliminate some of those detrimental effects, it would leave substantial watershed effects, retard recovery of areas of stream still under direct grazing, and inhibit population expansion, migration, metapopulation dynamics, and other factors necessary to full Gila topminnow stability and recovery in Redrock Canyon. In addition, the Seibold allotment, for which proposed animal months exceeds capacity by 31 %, clearly does not meet the four goal of balancing permitted use with grazing capacity.

Response 6-16: The Forest Service will take your comments into consideration.

Comment 6-17: page 8, para. 1 item 2. The draft EA contains no mention of the discussion in the 1999 biological opinion on effects to, and needs for recovery of, Gila topminnow in Redrock Canyon. It also makes no mention of the August 200 I *Summary of management options and vision statement for Redrock Canyon Watershed* which was prepared at the Forest's request by the Forest biologist and a FWS biologist (myself) for this livestock grazing analysis. Neither of those documents support the premise that the grazing alternatives of this draft EA would meet your goal item 2. Clearly this EA does not use the "best available information" standard you have set forth in the preceding paragraph.

Response 6-17: See Responses 6-9.1 and 6-9.3. Gila topminnow are not identified specifically in the desired condition statements, but protection of the species habitats has been a significant issue for all activities within the Redrock Canyon watershed, including this EA. The failure to specifically mention the referenced vision statement is an omission on our part, but the desired condition statements were an attempt to capture the key points of the vision statement.

Comment 6-18: page 8, para. 1, item 3. The history of livestock grazing and riparian improvement in Redrock Canyon does not support a contention that continued grazing on some areas of the Redrock Canyon mainstem and on tributaries would "correct" the grazing activities that contribute to unsatisfactory riparian conditions. As noted in the 1999 biological opinion, 15 years of winter grazing only in mainstem Redrock Canyon has failed to achieve the even more limited goals of the Redrock Action Plan.

Response 6-18: The statement refers to a desired condition statement, and does not contain the referenced contention. A discussion of effects to riparian condition under each of the alternatives is included in the EA on pages 20-25. Monitoring of riparian areas in the project area since 1991 has shown improvements in riparian condition.

Comment 6-19: Observations in the past two years in Oak Grove Canyon below the new enclosure and downstream to Redrock Canyon, including the windmill and corral on the stream bank, indicate that significant adverse impacts to riparian and stream conditions are ongoing from livestock grazing activities. These are activities that are scheduled to continue under the grazing alternatives proposed in this EA.

Response 6-19: Please see Response 6-11.

Comment 6-20: The proposed alternative, which would also allow for livestock grazing in Redrock pasture of the Kunde allotment, would seriously violate this goal. Significant riparian development has occurred in some areas of this pasture during the past 7 years of cattle nonuse. Resumption of livestock grazing within this pasture, even on a limited and winter-only basis, would result in substantial losses to that improvement and a negative trend in riparian condition.

Grazing activities in riparian areas on other allotments would also violate this goal. The seep spring area on the west fork of Cienega Creek is one example. Another is at Alamo Spring, where a significant area of surface water and riparian vegetation is being heavily impacted by livestock. This area and the impacts are discussed later.

Response 6-20: The agency preferred alternative will exclude livestock grazing from the Redrock pasture. With regard to Alamo Spring, see Response 6-25, below.

Comment 6-21: page 8, para. 1, item 4. Because the EA does not disclose what species are considered "management indicator species" it is not possible for the reader to tell if the proposed alternatives could meet this goal. I suggest that appendix 1 be amended to include a list of management indicator species.

Response 6-21: Thirteen management indicator species selected for analysis are listed on page 40 of the EA. These were derived from the Analysis of Effects to Management Indicator species prepared for this EA (Doc. 98).

Comment 6-22: page 8, Proposed Action, Seibold and Crittenden allotments, bullet item 1. This item speaks to a "six-pasture" rotation. It does not mention the seventh, and largest of the Seibold/Crittenden pastures, the Crittenden pasture. Information on that pasture is given later in the section, but it should be mentioned in this first summary, and it should be clarified that although there are only 6 pastures in the rotation, there is a seventh pasture that will be used for other purposes.

Response 6-22: You are correct; there are seven pastures in total. However, current management combines the Moonshine pasture with other pastures creating, in effect, a five pasture rotation with Crittenden being the sixth.

Comment 6-23: page 8, Proposed Action, Seibold and Crittenden allotments, bullet item 2. What is the life of the AMP? Does it have a 10-year life that coincides with the life of the permit, or is it of shorter or longer duration? Once the permit is issued, if the AMP expires or is rewritten, how does the USFS alter the permit to conform to the new AMP?

Response 6-23: The allotment management plan is the long-term operating plan that implements the decision made through the NEPA process. The term of the AMP is generally the same as the term of the permit and the analysis period for the EA, in this case, ten years. AMP's should be updated regularly reflect current management needs and opportunities. Annual operating instructions are used to accomplish this as part of grazing permit administration. The permit authorization is the subject of the NEPA analysis. The permit will not be altered without additional analysis under NEPA.

Comment 6-24: page 8, Proposed Action, Seibold and Crittenden allotments, bullet item 3. In an area of scarce and tiny waters, it does not appear to be in conformance with Forest Plan standards nor the goals of this proposed project to isolate the only spring found within a large area inside a cattle holding area. I realize a "holding pasture" can be many things, but they are by definition areas where higher densities of cattle are concentrated prior to some management action. This often results in a higher level of soil and vegetation impact, and sometimes produces what used to be euphemistically known as a "sacrifice area." The proposed action would place such an area completely surrounding a small fenced spring. This would make the spring subject to heavy input of runoff and sediment as well as a variety of other impacts, and would make access to the spring more difficult for wildlife in general, as they would have to negotiate their way across an area of depleted vegetative cover, which sometimes has high cattle densities. This seems like a serious negative impact to wildlife and water resources. The USFS and the Arizona Game and Fish Department discourage human camping within 1/4 mile of a surface water source. How then is it acceptable and desirable for an increased-use cattle management area to be located completely surrounding the only surface water source in a large area? The provision of a cattle trough nearby does not adequately replace the natural water source for wildlife use.

Response 6-24: As stated in the EA, one purpose of the fence is to restrict livestock access to a riparian area that receives heavy use. Livestock use in the vicinity of Corral Canyon spring will be reduced from approximately 120 days per year to six days per year.

Comment 6-25: page 8, Seibold and Crittenden allotment, bullet 4. It is not clear what this holding pasture would entail. Since holding pastures are generally areas of less frequent, but higher density cattle use, I presume the intention is to limit the use of Alamo Spring temporally, but not necessarily in total numbers of cattle use. Once again, I think it is a poor idea to use a highly valuable surface water source as a cattle management tool. Having conducted surveys of aquatic and riparian conditions at Alamo Spring in 1989 and again in May 2003, I believe this spring to have great potential for restoration. It has ash, cottonwood, and willow. It also has seep willow, false indigo bush, deergrass, bermuda grass joint rush, cattails, and sedges. Surface water extends for about 500 feet in the spring area, with isolated pools further downstream, including one of 50 feet in length. Pools are of substantial volume, with the deepest 18 inches to 2 feet. The spring and surrounding area is heavily used by livestock, as it was also in 1989. Willow and ash of "bonsai" form from heavy grazing are present, and the outer stems of all seepwillow

are broken by cattle. The cattails were hard to identify because they only extended 3 inches above the water where they were grazed off. The grassy areas along the spring are compacted and the vegetation is mown to ground level by cattle. Streambanks are chiseled and pocked with hoof prints. As we camped shortly upstream that night, a herd of approximately 30-50 cattle moved down canyon to the spring shortly after midnight (which is why I'm unsure on the number).

Clearly there is a need to reduce grazing use and impact at Alamo Spring and the canyon downstream to the Forest boundary. However, I doubt that a holding pasture will result in the kind of improvement needed. As we have experienced with livestock exclosures elsewhere, including the first three in Redrock Canyon, after a few years of developing vegetation and bank storage within the exclosure, the surface flow is increased both within the exclosure and downstream. This supports a conclusion that exclosing Alamo Spring and canyon, with an appropriate upland buffer, from cattle use would likely increase the surface water in the area. Aquatic invertebrate life at the spring is abundant, but no fish are present. This is a high potential site for reintroduction of Gila topminnow and possibly desert pupfish, Gila chub, and longfin dace. The recovery program for Gila topminnow is searching for sites for replication of the Redrock Canyon stock. Alamo Spring should be given high priority for such recovery efforts.

Response 6-25: This action was proposed to mitigate cattle impacts in the vicinity of Alamo Spring. Livestock will be excluded from the entire exclosure except for a brief period, estimated at two weeks, when approximately 50 cattle will be held in the pasture in order to be worked. We believe that this action will, in effect, create the spring exclosure and upland buffer you describe. Conditions on the spring will be monitored and, if livestock continue to impact riparian condition, additional measures may be taken, including fencing of the spring.

Comment 6-26: page 9, Seibold and Crittenden allotment, bullet 7. The term "summer growing season" used here, and the term "growing season" used elsewhere throughout the document should be defined and included in the glossary. The definition should be clear and specific enough that the public can understand what time of the year and under what conditions it will be considered to be the "growing season." To most people the months of March and April, which you have defined as a part of , "winter" are actually "growing season."

Response 6-26: Thank you for the suggestion; this should have been defined in the glossary. The primary growing season in the project area is the summer growing season which occurs in response to summer rains (generally July-October). A spring growing season occurs from March to June. The intention of the proposed action/preferred alternative is insure that pastures will not be grazed during the same growing season in consecutive years. If a pasture is grazed during the summer one year, it will not be grazed during the summer the next, but may be grazed during the spring.

Comment 6-27: Is the following a correct interpretation of the description of the use of the Crittenden pasture? From December through April use of the pasture will alternative between 50 dry cows one year and 100 cows (which may or may not include heifers) the

next. The rest of the year will alternate between 50 heifers (or cows if in drought) one year and no cattle the next. If this is not a correct interpretation, then the paragraph should be rewritten to make it clearer what actually will be the livestock use in that pasture.

Response 6-27: Your interpretation is essentially correct. The key is that summer growing season rest will be provided every other year.

Comment 6-29: page 9, Seibold and Crittenden allotment, final para. This comment applies to all allotments, the descriptions for which use the same terminology. What are the criteria for designating key areas where forage utilization levels will be measured? Forest Plan guidance refers to measuring utilization on key species. What species will be key on these allotments or what criteria will be used to select those species? What will be the relationship between key areas and key species for these allotments? How will utilization on riparian trees and shrubs be monitored?

All applicable (sic) to all of the allotment proposed action descriptions is the question of how it will be determined when cattle will use certain pastures or areas. With the exception of a few pastures which specify a season or months, the pasture use criteria are a vague "will be regulated by water and forage availability as well as utilization levels" with only one caveat, which is that pastures are not to be grazed during the (undefined) growing season two years in a row. Will the decisions regarding when and how long to use a pasture be made in the annual operating instructions or will they be made on-site by the permittee? It would appear that this open-ended management plan would allow for a wide variety of duration and intensity of livestock use. Under these vague criteria, regulation of livestock use by the USFS would seem to be virtually impossible. In addition to regulatory and management difficulties, the use of such vague criteria would seem to make adequate analysis of the proposed alternatives very difficult and inaccurate. However, later predictions of changes in resource parameters are estimated to a precision of single percentage points. Given that the management criteria do not allow for determining how long or when (with a few exceptions) livestock will use an area, accurate prediction is not possible and attempts to make it seem so by using precise percentages is a subterfuge that throws doubt on all of the analysis.

Response 6-29: Please see responses 3-3 and 6-4 for a discussion of key areas. Key species are identified and monitoring methods discussed in the Decision Notice. Utilization is also discussed under Response 6-4. Annual use of pastures is specified in annual operating instructions. These decisions are made jointly by the District Range Staff and the permittee. Pasture rotations are based on resource conditions and monitoring that identifies when utilization thresholds are being approached, rather than calendar dates. However, the provision for growing season rest will be adhered to. This system requires the active participation of the permittee on the ground, but provides the flexibility to respond to changing resource conditions.

Comment 6-30: page 9, Kunde allotment, bullet item 1. The proposed alternative for the Kunde allotment has unacceptably large adverse effects to Gila topminnow. Resumption of livestock grazing on the Redrock Canyon mainstem in this allotment with the resulting

loss of riparian and stream channel improvements gained during the 7 years of livestock removal would be a significant setback to the recovery of this endangered species. As pointed out in the 1999 biological opinion, winter grazing on this part of Redrock Canyon did not obtain significant riparian improvement and no stream channel improvement during the 6 years of implementation of the Redrock Action Plan. However, the 7 years of livestock removal did result in substantial riparian and some channel improvement. Recovery of Gila topminnow in Redrock Canyon is a long, slow, incremental process. Serious setbacks, such as reopening this portion of the stream to livestock use, may result in failure to ever stabilize or recovery this population. Extirpation of this population is always a looming threat, there is no stability at present. Only forward progress will ensure that the population survives.

Response 6-30: Effects to Gila topminnow under each alternative are displayed on pages 25-30 of the EA. It should be noted that the agency preferred alternative removes livestock from the pasture containing Redrock Creek in the Kunde allotment.

Comment 6-31: page 10, Papago allotment, bullet items 1-12. This is a major expenditure of time and effort on the part of the USFS to provide for the raising of 400 cows. Natural resource protection and recovery efforts for endangered and threatened species in this area are woefully due to inadequate USFS staff time and money (sic). Diversion of limited agency resources to activities that adversely affect those same natural resources and listed species is an additive adverse effect to those species.

Response 6-31: The correct number of cattle is 250. Your comment regarding diversion of limited resources is noted; however, it involves issues of budget allocation that are beyond the scope of this analysis.

Comment 6-32: page 10, Papago allotment, final para. The use of a rare aquatic habitat, supporting an endangered and a proposed endangered species, as a cattle driveway is unacceptable. Even a one or twice a year event of 2-4 days will have significant adverse effects. As Allan Savory is fond of pointing out, cattle that are being driven are much more efficient as disturbing the soil and vegetation than cattle that are simply grazing. This use should be eliminated from the proposed and preferred alternatives. If cattle cannot be moved without crossing this portion of O'Donnell Creek, then they should either be trucked or the small portion of the allotment on the east side of O'Donnell Creek should be removed from the allotment.

The driving of cattle across O'Donnell Creek was apparently not considered in the 2002 biological opinion and conference report on continuation of livestock grazing, as it is stated that the area is exclosed and not used by cattle. This mistake should be corrected in the upcoming conference or consultation on that species for this proposed action.

Response 6-32: Please see Response 1-5.

Comment 6-33: page 11, Issues, bullet items 1-4. As one of the participants in identifying issues to be considered in this analysis, I am aware that there has been some mischaracterization of the issues raised. While the USFS concentrates on riparian

condition in their monitoring, I have repeatedly emphasized that the issue of stream channel morphology and condition is as important as the condition of the riparian vegetation and that both of those depend heavily on watershed condition. Similarly, I have repeatedly emphasized that while Gila topminnow is important, it is the native fish community that is the main issue. Unfortunately, in an apparent attempt to simplify the issues, these concepts were eliminated from the issues statement in the draft EA. If fish are broken out as a separate issue from other threatened, endangered, and sensitive wildlife (in the 4th bullet), then the other native fish should be included, particularly the proposed endangered Gila chub. Endangered, threatened, and sensitive plants have been totally missed as an issue. The presence of Federally-listed plants on these allotments should automatically raise them as an issue. Please rewrite the issues statement to include the above.

Response 6-33: While the bullet statement on page 11 seems to indicate that only Gila topminnow were considered, the effects to all native and non-native fish species known from the project area were considered in the Fisheries Effects section (EA page 25). Effects to Gila chub are displayed on pages 29-30 of the EA. Effects to Huachuca water umbel are displayed on page 48 of the EA, the Wildlife Specialist's Report (Doc. 100) and the Biological Assessment and Evaluation (Doc. 107). Effects to Canelo Hills ladies tresses are also discussed in Documents 100 and 107, but are not specifically addressed in the EA, except in Table 9 on page 44. The biological assessment arrived at a determination of No Effect for this species. In addition, 37 Forest Service Sensitive plant species were analyzed in Document 107.

Comment 6-34: page 12, Issues, bullet item 5. The use of scarce staff time and funds for range improvements may not be the highest and best use of those agency resources, particularly in light of natural resource and listed species declines due to lack of staff time and funding.

Response 6-34: Grazing is a Congressionally authorized use of National Forest System lands. This comment addresses the appropriateness of grazing as a use of Forest Service lands, and is beyond the scope of this analysis.

Comment 6-35: page 12, bullet 1-5 items on measurement of issue resolution. These items need to be rewritten to address the issues that were omitted, as discussed above.

Response 6-35: We regret that you are not satisfied with the stated issues; however, these were identified by the ID Team early in the analysis process and form the basis for the analysis displayed in the EA.

Comment 6-36: page 13, Kunde allotment. This statement leaves the mistaken impression that livestock grazing is ongoing on the Kunde allotment. It should be rewritten to make it very clear that no grazing has officially occurred on the Kunde allotment since 1996. The "current management" alternative is actually a resumption of management from pre-1996 and not a continuation of the present situation. This is an important point in public understanding of the impacts of the proposed action.

Response 6-36: The description of the existing condition of this allotment on page 6 and in several other places in the EA makes it clear that no grazing has occurred on the allotment since. The Alternatives section is intended to define the differences between what would be authorized under each alternative, not to define existing conditions.

Comment 6-37: page 14, Papago allotment. As above, this is a misleading paragraph. Please make it clear that the "current management" option is actually a resumption of earlier grazing and not a continuation of the currently existing situation. Although it is stated elsewhere, it should be restated here that grazing was resumed in January 2003 after a 4 year hiatus.

Response 6-37: See response 6-36, above.

Comment 6-38: page 15, Kunde allotment, bullet item 1. The exclusion of livestock grazing from the Redrock pasture and reduction of numbers on the remaining pastures will result in substantial reduction in adverse impacts of the proposed action on Gila topminnow and the native fish and other aquatic community in Redrock Canyon mainstem. However, as you recognize there are still adverse effects from the preferred alternative. These come from watershed impacts, prevention of restoration and recovery of native fish and aquatic habitat in tributaries, and disruption of migration patterns and metapopulation dynamics. These adverse effects, in conjunction with adverse effects from other allotments and other human activities in the watershed, are serious enough to possibly prevent recovery of Gila topminnow and other native fish in Redrock Canyon.

Response 6-38: A discussion of the direct, indirect and cumulative effects of the alternatives is found elsewhere in the document (pages 18-19, 25-30 and 35-50).

Comment 6-39: page 15, Kunde allotment, bullet item 4. It appears that the USFS is getting prepared to combine the Kunde allotment with the Seibold and Crittenden allotments. When is this expected to occur and how are the allotment management plans expected to change at that time?

Response 6-39: The proposal is to extend a water line from a source on the Crittenden allotment to a trough on the Kunde allotment. There is no proposal to combine the allotments.

Comment 6-40: The transfer of water between watersheds of Sonoita Creek (Corral Canyon and Redrock Canyon) and tributaries of Red rock Canyon (e.g. Oak Grove Canyon and Lampshire Canyon) is not a desirable thing. While the quantities are small, the quantity of available water in the drainage is not large and even these small shifts in water distribution may affect the surface water distribution and availability. The number of water developments and interbasin transfers on these allotments is substantial and growing. The Forest Service's 2001 mini-assessment of the cumulative impacts of water developments within Redrock Canyon, was useful, but cursory. A more substantive

assessment of these developments and their impacts should be conducted prior to implementation these permits and AMPs.

Response 6-40: The information contained in the Redrock Creek Water Balance Report (Doc. 60) represents the best available data for this issue. We believe it provides a sufficient basis to analyze the effects of the action.

Comment 6-41: If the draft EA refers to conclusions based on the regional grazing criteria, then those criteria, or at least a summary of their content, should be included. Otherwise the reader has no basis to discern whether the Forest Service's conclusions have any logical basis.

Response 6-41: We assume this comment pertains to a reference to the Regional Guidance Criteria on page 27. A copy of the appropriate portions of the criteria is included in the project record as Document 104. The reference to this document was inadvertently omitted from the text of the EA. Additional references to the guidance criteria are contained in the BA (Doc. 107) along with a copy of the pertinent criteria for Gila Topminnow.

Comment 6-42: page 30, Cumulative effects - fisheries. This discussion is seriously inadequate. It appears to assume that only grazing activities are cumulative to the proposed action. This is not correct. There are a variety of other activities in Redrock Canyon, Cienega Creek, Sonoita Creek, Alamo Canyon, and O'Donnell Creek that are cumulative to the proposed action and affect the final conclusion of this document. The discussion should be expanded to assess those cumulative impacts. In addition, it is incorrect to include a portion of the currently proposed action (exclusion of Redrock pasture) in the assessment of actions that are cumulative to it.

Response 6-42: Other activities that may contribute cumulative effects to fisheries are identified on page 49 of the EA. Admittedly, these effects should have been displayed in the fisheries section as well, but were missed in the process of combining the contributions of three different biologists during the editing process.

Comment 6-43: page 31 Table 4, page 32 Table 5, page 33 Table 6, and page 34 Table 7. Please explain the derivation of the percentages. The following discussion does not present any methodology for arriving at those figures. Did they result from computer modeling or some other type of quantitative predictive method? If not, then the analysis should refrain from generating unsupported numbers and simply rely on professional judgement based on logical deductions and inferences which are clearly enunciated.

Response 6-43: The methodology for determining vegetation condition is described in Doc. 86, page 6 and Appendix C. The methods used are accepted agency practices. Professionals who are qualified through education, experience and certification conducted the analysis. The NEPA analysis process requires that effects of actions be predicted. In the case of the predicted outcomes displayed in tables 4, 5, 6 and 7, they are

based on professional judgment, the logical deductions and inferences made are described in Doc. 86.

Comment 6-44: page 31, Kunde allotment, environmental effects, alternatives 2-5. Please see General comment 3 and the comment on page 13, Kunde allotment.

Response 6-44: We cannot find the reference on page 31. Please see Response 6-3 for a response to General Comment 3.

Comment 6-45: page 56 Tables 19,20,21, and page 57, Table 22. Please explain the derivation of the percentages. The following discussion does not present any methodology for arriving at those figures. Did they result from computer modeling or some other type of quantitative predictive method? If not, then the analysis should refrain from generating unsupported numbers and simply rely on professional judgement based on logical deductions and inferences which are clearly enunciated.

Response 6-45: The methodology for determining soil condition is described in Doc. 86, page 17 and Appendix C. The methods used are accepted agency practices. Professionals who are qualified through education and experience conducted the analysis. The NEPA analysis process requires that effects of actions be predicted. In the case of the predicted outcomes displayed in tables 19, 20, 22 and 22, they are based on professional judgment, the logical deductions and inferences made are described in Doc. 86.

Comment 6-46: page 57, Environmental effects, alternative 1. What is the basis for the conclusion that after 10 years the difference in soil quality between all alternatives would be "slight at slopes greater than 15%." What would be the difference on the lower gradient slopes, which is where most of the livestock damage occurs? What would be the difference on streambanks?

Response 6-46: The basis for the conclusion that after 10 years the difference in soil quality between all alternatives would be "slight at slopes greater than 15%" is that impacts of current cattle grazing are slight at those slopes (Docs. 7, 86). The difference on stream banks is discussed on pages 20-25 of the EA.

Comment 6-47: Appendices. It would be helpful if you would provide an appendix that lists the documents in the project record. While the parenthetical references to certain document numbers within the text is useful, a full listing in the appendix would enable the reader to understand the full scope of the data used in the analysis. It would also facilitate public review and acquisition of record documents.

Response 6-47: Thank you for the suggestion. We have done this in the past and will endeavor to include the project record index in all future EA's. The index is attached to this response to comments.

Comment 7-1: The proposed action provides no rotation schedules, except for east and west Redrock pastures in the Kunde allotment and Crittenden pasture in the Crittenden allotment. Season of use is extremely important in desert ranges, particularly in pastures that include riparian resources. Failure to provide a rotation schedule leaves a significant gap in disclosure as provided by NEPA, and will provide little direction for the allotment management plans that are to be written.

Response 7-1: Rotation schedules were included in the original scoping report, but were omitted from the Final EA because pasture moves are based on monitoring of forage availability and utilization to insure that utilization does not exceed allowable use. Annual operating instructions will be used to insure that, at a minimum, no pastures are grazed during the same growing seasons in consecutive years.

Comment 7-2: Permitting forage utilization of 45% on severely degraded watersheds will not promote restoration of the rangeland in a timely manner. Even grazing advocates Jerry Holechek and Dee Galt recommend forage utilization levels of 25-35% in desert ecosystems (Holechek et al. 1999, Galt et al. 2000). Utilization levels of 45% will only maintain existing conditions, but not restore them.

Response 7-2: Please see Response 6-4 for a discussion of utilization percentages. Response 1-2 displays recent measured utilization on the Seibold and Crittenden allotments.

Comment 7-3: Why is there no utilization standard for herbaceous riparian vegetation? In the project area, deer grass is a vital component of the riparian vegetative assemblage, and influences channel morphology and stability more than any other vegetative component. It also has significant sediment trapping and holding capability. Although deer grass is only moderately palatable to cattle, in these allotments it is typically grazed heavily (often to the root crown), suggesting that other more palatable species are impacted even further. A utilization standard for deer grass should be developed, which should be incorporated into the management plans and monitoring requirements for these allotments. In the Redrock watershed deer grass utilization standards should be more conservative than elsewhere because of the many riparian-dependent threatened, endangered, and sensitive species (TES) there.

Response 7-3: Deer grass is currently monitored on the Seibold and Crittenden allotments. This species can be identified as a key species for monitoring in the Decision Notice. Utilization criteria will be as described for herbaceous species in the EA.

Comment 7-4: Capacity in the Seibold allotment was estimated to be 38 CYL in 1986, but actual use averaged 50 CYL during 1991-1998 (page 6). In 1999, a new permit for 50 CYL was issued to a new permittee. If desired condition is to balance permitted grazing use with grazing capacity (page 7), why is the forest recommending 50 CYL (31 % higher than capacity) for the proposed action (page 8)?

Response 7-4: See Responses 1-2, 5-2 and 6-10.

Comment 7-5: Papago allotment was run as an HRM system for many years. Will this use be continued, or will it have a more traditional rotation schedule?

Response 7-5: The Forest is not proposing to implement any type of high intensity/short duration grazing system. Management will be under a rest-rotation system.

Comment 7-6: The statement "although watershed conditions were found to be satisfactory over most the (papago) allotment. . ." (page 7) needs explanation. Soil condition on the Papago allotment is 49% satisfactory, 48% impaired, and 3% unsatisfactory. Vegetation condition is 77% moderately high, 20% moderately low, and 3% low. With these existing conditions, how can watershed conditions be satisfactory over most of the allotment?

Response 7-6: The statement reflects a general impression by the professionals who conducted the analysis (Doc. 7). Watershed condition was not quantified as part of this study, however, watershed condition is highly correlated with both vegetation condition and soil condition. Water quality and riparian area condition are also correlated with watershed condition. In the case of the Papago Allotment, measurements of water quality indicated that the watershed was contributing to a high quality system. The riparian condition data that was collected indicated that although the sites measured were not true riparian areas, banks were protected by upland herbaceous species. In any case, the proposed action and alternatives that were developed are predicted to lead to improvements in rangeland and soil condition.

Comment 7-7: No period of time is indicated for how long this EA will be valid. The proposed action indicates issuing 10-year permits, but does this mean that a new EA will be developed at the end of 10 years? Forest Plan indicates that allotment management plans should be revised as needed, but at least every 5 years. In reality, allotment management plans often remain unrevised for 15-20 years. Without a specific period of time, it is difficult to assess the significance, or likelihood, of predicted improvements in resource conditions. I was pleased to see the attention that was paid to protection of habitat for the Gila topminnow. Currently, about 26% of the 5.1 miles of the length of Red rock Canyon (excluding private land at Redrock Ranch) is protected by enclosure fencing. Under alternative 4, about 3.1 miles (61 %) would be protected from grazing, thus meeting Forest Plan direction for grazing at intensity Level A in Management Area 7 when intensity Level D cannot meet riparian standards. The population of Gila topminnow in the Redrock drainage is the only natural population on National Forest System lands. As such, it is of national significance and quite worthy of extraordinary efforts to preserve and improve its environment, and contribute to recovery of the species, During the past 15 years, Coronado NF has made significant efforts to reduce or eliminate impacts to aquatic and riparian habitat in Redrock Canyon, and the preferred alternative (Alternative 4) will contribute to those efforts. However, in my opinion, alternative 4 only reduces direct impact on the habitat, and does not go far enough to correct the degraded soil and vegetation conditions in the watershed, which indirectly affect habitat for Gila topminnow.

Response 7-7: As stated under the proposed action for each allotment, the term of the permit will be ten years. The term of the analysis is also ten years (see Response 6-23). Where predictions of future conditions are shown in the EA, they reflect anticipated conditions at the end of the ten-year term of the analysis. As disclosed in the EA, the no grazing alternative is predicted to result in the greatest improvement in soil and vegetation over ten years. However, the preferred alternative is also projected to lead to improved conditions over the life of the project.

Comment 7-8: Because of the significance of the Redrock Canyon watershed to Gila topminnow, and the presence there of a large number of other TES species, the entire watershed should be closed to grazing, at least until soil conditions are rated as satisfactory on all capable acres, all riparian areas are rated as satisfactory, water quality is rated satisfactory, vegetation condition is high on all capable acres, and soil streambanks are present and resistant to cutting and erosion.

Response 7-8: The Forest Service will take your comments into consideration. It should be noted that all of these parameters are predicted to improve above current (1998 baseline) conditions under the preferred alternative.

Comment 7-9: Range: Tables 4-7 provide predictions of future vegetation condition and trend on the four allotments. Predictions are made to one percentage point, but there is no description of how these assessments were determined, nor is there a reference in the text to a document in the official record. Without some documentation, it can only be concluded that these figures are conjectural, not supported by data, and generated in order to support an action alternative. Notwithstanding, alternative 4 will produce only about 80% of the improvement that alternative 1 would provide, although over what period of time is not indicated. While this may be commendable for watersheds without significant riparian- dependent TES species, the goal in Redrock Canyon should be to promote rangeland restoration in as timely a manner as possible, especially considering the poor economics of the proposal (pages 50-55).

Response 7-9: The documentation of assessment methods is found in the Specialist Report for Effects to Vegetation, Soils, Water and Air (Doc. 86).

Comment 7-10: A noticeable omission in the range section regards how the alternative 4 will address impacts to vegetation and forage caused by the invasive plant goldeneye. How will forage utilization levels of 45% affect the spread and density of that plant? Under improved range conditions will goldeneye decrease in extent or density of occupation? One would assume that a range management EA would address in detail the impacts of invasive plants on the capability of the project area. This EA only addresses those impacts in the wildlife section, as though cattle and range management are not affected. Was the extent of goldeneye invasion considered when range capacity was determined? If so, how? The range section should address impacts of goldeneye on forage resources, vegetative condition, and capacity.

Response 7-10: The presence of Goldeneye on the allotments is addressed in Docs. 86, and 90. The presence of native annual weeds, such as goldeneye (*Vigueria annua*) does not affect the forage resources, range capacity or range condition because they are cyclical, not present in all years, responding to seasonal moisture. In favorable growing conditions it is prevalent over all condition classes. This occurrence is especially prolific when summer drought is followed by wet, mild winters such as the summer of 2000 and spring of 2001. Under these conditions, even long term ungrazed areas can have substantial stands of goldeneye.

Comment 7-11: Similar to the range section, the soil section does not note how predictive values were obtained, although it does reference site surveys done to obtain current conditions. Does the forest have long-term monitoring data on other similar allotments where management was changed to provide a basis for the huge increases in soil condition class expected under the various alternatives? If not, then the increases predicted are, like the range figures, subject to disbelief .

Large increases in percentage of satisfactory acres are predicted under alternative 4 in Tables 19-22, ranging from 25% in Papago and Kunde allotments to 154% in Seibold allotment during an unspecified period of time. Alternative 1 would add about 5 - 15% to amount of satisfactory soil acres over alternative 4. Again, the goal should be to restore the rangeland in as timely a manner as possible, which none of the action alternatives are likely to do. In fact, it is highly likely that acres of soil in satisfactory condition will actually decrease as the proposed water developments attract cattle to areas previously ungrazed or only lightly used. The soil analysis should describe how the predicted percentages were derived, and if and where there are similar allotments for comparison.

Response 7-11: Please see Response 6-45.

Comment 7-12: The text describing affected conditions in the Seibold allotment should note that the reason that grazing impacts are light there is due to the permittee making extraordinary efforts to restrict cattle grazing in the riparian area in West Redrock pasture during the past several years, and not because of the grazing prescription. If cattle had not been controlled through riding, impacts to vegetation and streambanks would have been higher, even with a shortened winter grazing season. It should also be noted that the permittee requested the area be fenced because exclusion of cattle could be more easily managed with fences rather than riding or salting. Finally, the observation regarding cottonwood trees having 60% of their terminal leaders grazed in previous years but yet being unhedged merely reflects decreased cattle presence due to change in management and special riding by the permittee beginning shortly before the survey, and not because cottonwood trees can withstand intense grazing impact.

Response 7-12: Very few allotment management plans will succeed without the commitment of the permittee. The efforts made by the permittee demonstrate his commitment to achieving resource goals on the allotment. The dedication of the permittee to good management is documented on page 6 of the EA, and also in

Documents 13-16, 57-58, 64-65, 85, and 109. No claim is made that cottonwood trees can withstand intense grazing impact.

Comment 7-13: The statement "It is not known if there is potential for supporting a stand of riparian trees that meets Land Management Plan standards and guidelines for satisfactory riparian areas (30 percent canopy closure)" needs explanation:

Response 7-13: This statement reflects the fact that the specialist who conducted the analysis could not say with certainty that, even with complete protection from grazing, a 30 percent canopy closure could be developed on that site. See Response 7-15 for an explanation of 30% canopy.

Comment 7-14: The response of vegetation to cattle exclusion has been dramatic in the short reaches in Redrock Canyon protected by fencing. Why wouldn't you think that similar responses would occur in much of Seibold allotment if grazing impact was removed? It is well documented that even light cattle grazing can prevent woody seedlings from recruiting to older life stages. Even in the relatively dry reaches of Redrock Canyon through these pastures, it is highly likely that some establishment of woody riparian vegetation will occur. If condition of soil and vegetation resources can be predicted to within a percentage point, then it seems rational that a more specific prediction of riparian responses could be made, particularly since there are several riparian exclosures upstream in the drainage for comparison.

Response 7-14: The effects of removal of grazing impact on the Seibold Allotment are discussed as Alternative 1, No Action/No Grazing.

Comment 7-15: 2) Forest Plan standards for satisfactory riparian conditions require either a) 80% of natural shade over water is present in fish-bearing streams, or b) 60% of natural shrub and tree crown cover is present. Is the 30% canopy closure based on some measurement or estimate of what natural shade cover would be in Redrock Canyon? If so, how was this estimate made?

Response 7-15: The standard of 30 percent canopy covered was derived by averaging shade cover for all of the true riparian areas observed forest-wide that meet the other vegetation standards of tree species and age classes.

Comment 7-16: I took photos at Alamo Canyon Spring in Crittenden allotment in October 1989 and May 2003. These photos and my field notes indicate that riparian conditions exist at Alamo Spring and downstream. There are Fremont cottonwoods, Goodding willows, seep-willows, velvet ash, deer grass, sedges, cattails, and other aquatic herbaceous plants present. Surface water was present during both of my visits and supported a variety of aquatic macroinvertebrates. To declare that Alamo Spring is not "true riparian" begs credulity. However, there has been no improvement in riparian conditions since 1989. During both visits cattle impact was intense. All of the soil streambanks were chiseled and point bars trampled, shrubs (including seep willow) and young trees were grazed and broken down, there was no recruitment of woody species, deer grass and aquatic herbaceous plants were fully consumed, and the amount of fecal

material in and around the riparian area was dense. This is a prime example of how chronic grazing in riparian areas prevents their vegetative components from becoming established and their soil components from stabilizing. The EA claims that riparian condition in Alamo Canyon is unsatisfactory but improving (page 5). How was this trend determined? Are there any data or photos from before the 1999 surveys that were used to document this assertion?

Alamo Spring appears to have potential to develop a high-quality riparian area, and if completely protected from grazing, the duration and extent of surface water would be increased similar to what has happened at the Redrock exclosures. Use of Alamo Canyon as a holding pasture will restrict riparian improvement at Alamo Spring unless the channel downstream to the forest boundary is excluded from grazing by fencing. Since Alamo Canyon is apparently a popular equestrian use area ("ride through gates will be provided" (page 8)), the forest should consider exclusion of cattle rather than using it as a holding pasture.

Response 7-16: Please see Response 6-25.

Comment 7-17: In Kunde allotment, Lampshire Canyon in Upper Lampshire pasture also contains woody and herbaceous riparian vegetation, and intermittent surface water (see Document 101, Figures 79-86). Reestablishment of grazing in Upper and Lower Lampshire pastures will result in the loss of all riparian improvement gained since the late 1990' s. The capability of deer grass to catch and hold sediment coming off the highly degraded watershed will be compromised to the detriment of aquatic and riparian habitat used by topminnow downstream. The effects of alternative 4 in Redrock Canyon will be the same as alternative 1 because grazing on the degraded watersheds will be reinitiated and potential for recovery of soil and vegetation conditions on those watersheds severely reduced. Upper and Lower Lampshire pastures in Kunde allotment should be closed to grazing in order to facilitate improvement in riparian conditions downstream in Redrock Canyon, and to increase the potential for reestablishment of Gila topminnow in Lampshire Canyon.

In Papago allotment, Lampshire pasture should be closed to grazing in order to facilitate improvement in riparian conditions downstream in Redrock Canyon, and to increase the potential for reestablishment of Gila topminnow in Lampshire Canyon.

Response 7-17: The effects of grazing in Redrock Canyon under Alternative 4 are described in the EA, page 24 and 25. The level of grazing that is proposed will not cause degradation of downstream conditions. The proposed action/preferred alternative for these allotments contain measures designed to minimize impact to vegetation in Lampshire Canyon. These include reductions in livestock numbers in the Kunde and Papago allotments, creation of new upland waters that aid livestock distribution, utilization limits and grazing rest.

Comment 7-18: On page 59, the statement "Wells tap into groundwater, which does not contribute to base flow." needs explanation. Most wells in the project area are shallow and typically in the bottom adjacent to a channel. They remove water that is undoubtedly

directly connected to surface water. Couldn't removal of water from a water table that supplies an intermittent stream be likely to reduce extent or duration of surface water?

Response 7-18: The amount of water removed from those wells is less than 1 percent, and is not a measurable contribution to base flow (Doc.60).

Comment 7-19: Document 101 should be correctly cited as Stefferud 2001 and the references to Sally Stefferud as a co-author removed (Pages 21,23).

Response 7-19: This will be changed in the Literature Cited.

Comment 7-20: This EA has been a long time in preparation, and I'm sure that everyone involved will be relieved to see it finalized. However, considering that it will provide direction for land management in the Redrock Canyon area for many years, perhaps decades, and the project area has so many valuable resources, I strongly believe that it needs to recommend extremely conservative cattle management. As I stated earlier, it does not disclose all pertinent effects as required by NEPA, and the preferred alternative will not result in management that meets the requirements of the Forest Plan.

Response 7-20: We will take your comments into consideration.

Comment 8-1: Somehow I missed building a fence around hidden tank located in the southeastern part of the Crittenden pasture. It was included in one early draft of the Assessment and is part of the improvements to be funded by our water quality improvement Grant. The purpose is the same as that listed for Red Bear and Gasoline Tanks on page 14, and is needed to keep cattle out of mountain mahogany, as well.

Response 8-1: At this time, we cannot add this activity to the proposed action because it was not identified in the EA; however, the Forest supports the proposed fence and will work with you to evaluate and implement this proposal under a separate decision.

RED ROCK ALLOTMENTS GROUP

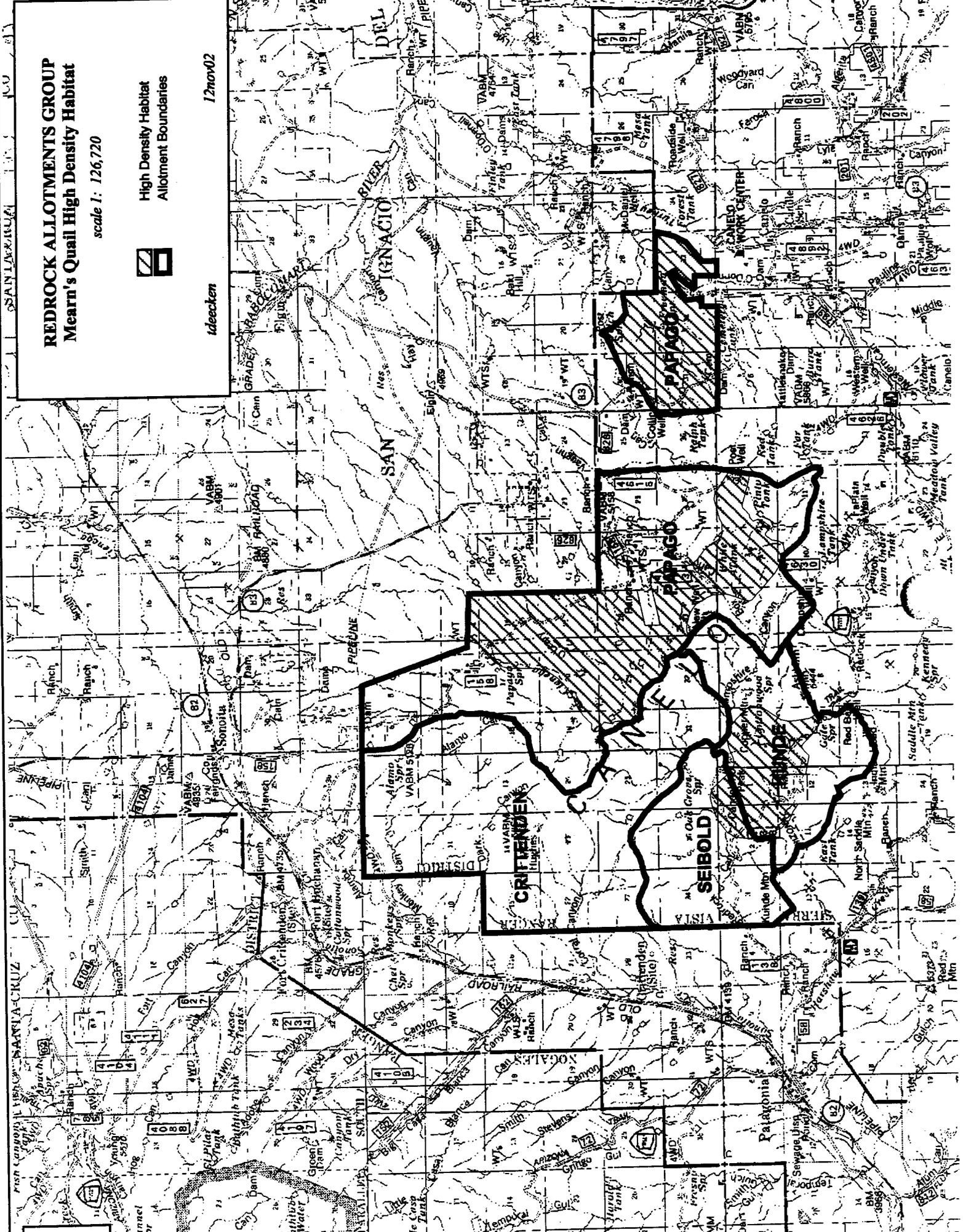
Mearn's Quail High Density Habitat

scale 1: 126,720



High Density Habitat
Allotment Boundaries

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ldeecten



Appendix 1 - Project Record

<i>Doc</i>	<i>Date</i>	<i>Author FN</i>	<i>Author LN</i>	<i>Addressee FN</i>	<i>Addressee LN</i>	<i>Contents</i>
1	10/21/1998	Ron	Senn	File		Project Initiation Letter
2	1/26/1990	Jerry	Deiter	File		Papago Allotment Term Grazing Permit
3	7/16/1991	Jerry	Deiter	File		Redrock Canyon Action Plan
4	1/7/1998	Richard	Collins	Jennifer	Ruyle	Phone call notes, suggestions for management options, Seibold and Crittenden
5	5/4/1998	Jeanne	Wade	File		Seibold and Crittenden Allotments Term Grazing Permit
6	8/11/1998	Jeanne	Wade	File		Kunde Allotment Term Grazing Permit
7	9/4/1998	Bill	Edwards	File		Papago and Z-Triangle Allotment Inspection
8	12/1/1998	NEPA	Team	File		Internal Scoping Meeting Notes
9	1/11/1999	Bill	Edwards	District	Ranger	San Rafael Allotment, Redrock Pastures Inspection
10	1/12/1999	Richard	Collins	Jennifer	Ruyle	Crittenden-Seibold max stocking level, Pasture rotation plan
11	1/12/1999	Richard	Collins	Jennifer	Ruyle	Crittenden-Seibold 3 yr. Avg. annual aum's by pasture @ max stocking level (duplicate
12	1/13/1999	Bill	Edwards	Jennifer	Ruyle	Papago AMP Ideas
13	1/15/1999	Richard	Collins	Jennifer	Ruyle	Options for stocking/rotation plans, Seibold and Crittenden Allotments
14	1/26/1999	Richard	Collins	Jennifer	Ruyle	Comments and New Information on the 1998 Biological Assessment for Gila Topminnow in Mailing list additions
15	2/17/1999	Richard	Collins	Jennifer	Ruyle	
16	2/19/1999	Richard	Collins	Jennifer	Ruyle	Comments on possible rotation schedule
17	2/22/1999	Jeanne	Wade	Interested	Party	Transmittal Letter For Scoping Report
18	2/22/1999	NEPA	Team	Project	Record	Scoping Report - Seibold, Crittenden, Kunde and Papago Allotment AMPs
19	2/22/1999					Mailing list for Scoping Report

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20	3/1/1999	Jeanette	Cassa	Jerry	Conner	Comments on Scoping Report - San Carlos Apache Tribe
21	3/1/1999	Jeff	Burgess	Jerry	Conner	Comments on Scoping Report
22	3/13/1999	Jim	Notestine	Jerry	Conner	Comments on Scoping Report
23	3/14/1999	Mac	Donaldson	Jerry	Conner	Comments on Scoping Report
24	3/15/1999	Gene	Davison	Jerry	Conner	Comments on Scoping Report
25	3/16/1999	Leigh	Kuwanwisiwma	Jerry	Conner	Comments on Scoping Report
26	3/17/1999	Oscar G. and Lea r.	Ward	Jerry	Conner	Comments on Scoping Report
27	3/22/1999	Joan	Scott	Jerry	Conner	Comments on Scoping Report - AG&FD
28	3/22/1999	Steve	Saway	Jerry	Conner	Comments on Scoping Report with attachment: USDI/BLM Arizona Standards
29	3/24/1999	Rachel	Thomas	Jeanne	Wade	Comments on Scoping Report - Arizona People for the USA
30	3/25/1999	Thomas	Hunt	Jerry	Conner	Comments on Scoping Report
31	3/25/1999	Joan	Scott	Jerry	Conner	Comments on preparation of Biological Assessments, Seibold, Crittenden, Kunde,
32	3/26/1999	Ren	Northrup	Jerry	Conner	Comments on Scoping Report - ADEQ
33	4/9/1999	Jennifer	Ruyle	File		List of Respondents to Seibold/Crittenden/Kunde/Papago and Lyle
34	4/12/1999	John	Millican	Laura	Dupee	Comments on Scoping Report
35	4/23/1999	Joan	Scott	Jerry	Conner	E-mail acknowledgement of meeting with the NEPA Team on this date
36	4/23/1999	Jerry	Conner	File		E-mail denying request to remove comments from record
37	4/25/1999	Larry	Peterson	John	McGee	Comments On The Biological Opinion Draft for the Red Rock Ranch
38	4/28/1999	Dave	Lukens	Jerry	Conner	Comments on Scoping Report
39	5/4/1999	Larry	Peterson	John	McGee	Comments On The Biological Opinion Draft for the Red Rock Ranch
40	5/4/1999	Jeanne	Wade	Scoping	Respondents	Invitation to field trip

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41	5/9/1999	Richard	Collins	John	McGee	Comments on, corrections to and new information pertinent to the April 14th Attendance list for May 19th field trip
42	5/19/1999	Various		File		
43	5/27/1999	Laura	Dupee	Interested	Party	Agenda and map for May 27th field trip
44	5/27/1999	Various		File		Attendance list for May 27th field trip
45	5/30/1999	Dave	Lukens	Jerry	Conner	Update to comments, post field trips
46	6/9/1999	NEPA	Team	File		Site Visit Form, Crittenden Allotment - Red Bear and Corral Canyon Pastures, Seibold Site Visit Form, Seibold Allotment - Oak Grove Spring
47	6/14/1999	NEPA	Team	File		
48	6/18/1999	David	Hodges	Jerry	Conner	Comments on Scoping Report - Sky Island Watch
49	7/12/1999	Jerry	Stefferd	Jerry	Conner	Comments on Scoping Report - USFS Fisheries Biologist
50	7/14/1999	Dave	Lukens	Jennifer	Ruyle	Post field trip comments re: Mearn's Quail
51	7/16/1999	Randall	Smith	NEPA	Team	Forwarded e-mail from Joan Scott re: range management
52	8/11/1999	Randall	Smith	Jerry	Connor	E-mail indicating that the Kunde Allotment may be dropped from analysis pending Letter to NEPA Team re: Biological Opinion, Gila Topminnow
53	8/11/1999	Randall	Smith	Jerry	Conner	Redrock Ranch Holdings Informal Offer
54	8/23/1999	Christin	Peterson	Randall	Smith	
55	8/23/1999	Ron	Senn	Jerry	Conner	Memo re: Change in NEPA Team priorities
56	8/30/1999	Richard	Collins	Randall	Smith	Letter re: delay of NEPA analysis
57	9/29/1999	Richard	Collins	File		1998 Photo monitoring, Seibold and Crittenden Allotments
58	12/17/1999	Richard	Collins	Jennifer	Ruyle	Phone call notes, possible access problems and mitigation, Alamo Springs
59	1/5/2000	NEPA	Team	File		Notes and attendance list from meeting with USF&WS, AG&FG, USFS Zone Fisheries
60	9/26/2000	Robert	Lefevre	File		Redrock Creek Water Balance
61	1/4/2001	Tom	Deecken	File		Special Status Species That Do Or Could Occur On the Redrock Allotments, Coronado

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62	1/22/2001	Richard	Collins	Bill	Edwards	Review of, and suggestions for minor changes to Proposed Action: Seibold and Monitoring Report, per requirements of BO
63	1/30/2001	Bill	Edwards	File		
64	3/14/2001	Richard	Collins	NEPA	Team	Ten year grazing plan for the Seibold and Crittenden Allotments
65	3/15/2001	Richard	Collins	Jennifer	Ruyle	2000 - 2001 Grazing Use Report, Seibold and Crittenden Allotments
66	3/19/2001	Bill	Edwards	Jennifer	Ruyle	Tentative Gila topminnow sampling schedule
67	3/21/2001	Richard	Collins	Jennifer	Ruyle	Projected AUMs per year for Seibold and Crittenden Allotments
68	3/27/2001	Josh	Taiz	File		Various e-mails-scheduling of meeting with USFWS
69	3/28/2001	Richard	Collins	Jennifer	Ruyle	1999 - 2000 Grazing Use Report, Seibold and Crittenden Allotment
70	3/30/2001	Robert	Lefevre	Jennifer	Ruyle	Notes on Riparian Areas, Seibold, Crittenden, Kunde and Papago Allotments
71	4/6/2001	Western Regional	Climate Center	File		Monthly Average Total Precipitation - Canelo 1 NW, Arizona
72	4/18/2001	Stephen	Gunzel	Jennifer	Ruyle	Seibold, Kunde AMP NEPA-thanks for meeting
73	4/18/2001	Josh	Taiz	Stephen	Gunzel	Lampshir Canyon Dams
74	4/19/2001	Bob	Lefevre	File		Map-Redrock Canyon-stockponds by name and owner
75	5/11/2001	Bill	Gillespie	File		Inventory Standards & Accounting form for Seibold, Kunde, Papago & Crittenden AMPs
76	5/15/2001	Jennifer	Ruyle	File		5/15/01 AMP meeting notes & attendance list
77	5/23/2001	Jennifer	Ruyle	File		5/23/01 meeting notes - generate alternative for Kunde
78	5/24/2001	Jennifer	Ruyle	Jerry	Stefferd	Fax-Parts of monitoring report dealing with Gila topminnow
79	5/31/2001	Jim	McDonald	File		Economic efficiency & impact analysis: seibold, Kunde, Crittenden & Papago
80	6/12/2001	Bill	Edwards	Jennifer	Ruyle	Capacity estimate for Kunde Allotment, Alternative 4
81	9/28/2001	Martin	Taylor	Laura	Dupee	Request to be consulted as an interested public on all grazing-related decisions.
82	10/30/2001	Bill	Edwards	File		Seibold Allotment monitoring forms and photographs

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83	10/31/2001	Jennifer	Ruyle	Robert	Csargo	Memo - potential production figures for the Papago, Crittenden, Seibold and Kunde
84	11/6/2001	Jerome	Stefferd	Paul	Deecken	Memo - topminnow monitoring in Redrock Canyon
85	11/6/2001	Richard	Collins	Jennifer	Ruyle	Memo - tranmittal of monitoring forms & photographs, Doc. 82
86		Jennifer	Ruyle	File		Soils, water, air Specialists Report
87	12/28/2001	David	Harlow	John	McGee	Letter - need to extend Oak Grove Canyon livestock enclosure
88	1/3/2002	Richard	Collins	Steve	Gunzel	Correction of sampling location contained in J. Stefferud report
89	1/30/2002	Bill	Edwards	District	Ranger	Seibold riparian monitoring
90	3/26/2002	Dan	Robinett	Jennifer	Ruyle	Memo - site visit to Seibold and Crittenden Allotments
91	11/5/2001	Randall	Smith	District	Rangers	Mearns' quail management direction
92	11/2/2001	Richard	Ockenfels	Randall	Smith	AGFD comments on Mearns' quail technical guidance bulletin
93	8/27/2001	George	Ruyle	Kirby	Bristow	comments and questions on Mearns' quail paper and presentation
94	11/19/2001	Kirby	Bristow	George	Ruyle	Response to G. Ruyle letter
95	5/1/1994	James	Abbott			FSM supplement 2600-94-1, direction for implementing utilization standards in high
96		Jerome	Stefferd	Robert	Csargo	Effects analysis for Gila topminnow, Seibold, Crittenden, Kunde and Papago allotments
97	8/1/2001	Jerome	Stefferd	Robert	Csargo	Vision statement for Redrock Canyon Watershed
98	3/18/2002	Robert	Csargo	Files		Management Indicator Species Analysis
99	11/18/2002	Donald	Mitchell	Rick	Gerhart	Redrock Canyon stock tank and stream survey - 2002
100	3/15/2002	Robert	Csargo	Files		Wildlife Specialists Report, Seibold allotment group
101	12/1/2001	Jerome	Stefferd	File		Redrock Canyon photopoint and aquatic habitat survey (Report only)
102	7/1/2002	USFS		USFWS		Biological assessment of on-going and long term grazing on the Coronado National
103	10/25/2002	USFWS		USFS		Final biological opinion and conference opinion, continuation of livestock grazing

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104	5/15/2002	USFS				Regional guidance criteria
105	7/22/1998	USFS		File		Stockpond management and maintenance guidelines ofr Sonora tiger salamander
106	1/24/2003	Steve	Gunzel			Ranger approval of significant issues and range of alternatives
107	5/1/2003	Robert	Csargo	File		Biological Assessment and Evaluation - Seibold Group
108	5/1/2003	John	McGee	Stephen	Spangle	Cover letter for BA/E
109	4/10/2003	Richard	Collins	Richard	Gerhart	Corrections to proposed action
110	5/1/2003					Environmental Assessment mailing list
111	5/1/2003			Mailing list		Environmental Assessment: Seibold, Crittenden, Kunde and Papago allotments
112	5/1/2003	Steve	Gunzel	Mailing list		EA cover letter
113	5/7/2003					Public notice and affidavit of publication
114		Tom	Deecken	File		Mearns' quail key area identification
115		Jim	McDonald	File		Economic Analysis for EA
116	8/8/1997	Jean	Wade	Sam	Spiller	Biological Assessment for O'Donnell Creek Enclosure
117						Coronado National Forest Drought Policy
118	6/25/2003					Forest-wide analysis of Management indicator species
119	6/2/2003	Lefevre	Bob	File		Redrock Fire Burned Area Report
120	5/8/2003	Jeff	Burgess	Richard	Gerhart	Comments on EA
121	5/9/2003	Gene	Davidson	Richard	Gerhart	Comments on EA
122	6/2/2003	David	Lukens	Richard	Gerhart	Comments on EA
123	5/31/2003	Jim	Notestine	Richard	Gerhart	Comments on EA
124	6/4/2003	Laurie	Fulkerson	Richard	Gerhart	Comments on EA

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125	6/6/2003	Sally	Steffered	Richard	Gerhart	Comments on EA
126	6/6/2003	Jerome	Steffered	Richard	Gerhart	Comments on EA
127	5/19/2003	Richard	Collins	Richard	Gerhart	Comments on EA
128	5/13/2003	Bill	Edwards	Steve	Gunzel	Papago allotment inspection
129	10/6/2003	Steve	Gunzel		Various	Agency Response to Comments on EA
130	10/30/2003	Steve	Gunzel			Decision Notice and FONSI - Seibold and Crittenden
131		Steve	Spangle	Forest	Supervisor	Biological Opinion - Papago and Kunde Allotments (receipt pending)