

CONSOLIDATED DECISION FOR APPEALS
of the
MEDICINE BOW NATIONAL FOREST
REVISED LAND AND RESOURCE MANAGEMENT PLAN

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Date

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Acronyms and Abbreviations

APA	Administrative Procedures Act
AR	Appeal record
BA	Biological Assessment
BE	Biological Evaluation
BMP	Best Management Practice
BO	Biological Opinion
CFR	Code of Federal Regulations
CMAI	Culmination of Mean Annual Increment
DEIS	Draft Environmental Impact Statement
ESA	Endangered Species Act
FEIS	Final Environmental Impact Statement
FR	Federal Register
FSH	Forest Service Handbook
FSM	Forest Service Manual
FWS	Fish and Wildlife Service
LAU	Lynx Analysis Unit
LRMP	Land and Resource Management Plan
MA	Management Area
MAP	Management Area Prescription
MBNF	Medicine Bow National Forest
MIS	Management Indicator Species
NEPA	National Environmental Policy Act
NF	National Forest
NFMA	National Forest Management Act
NFS	National Forest System
NOA	Notice of Appeal
OHV	Off-highway vehicle
RNA	Research Natural Area
ROD	Record of Decision
SIA	Special Interest Area
TES	Threatened, endangered, or sensitive
USC	United States Code

**Consolidated Decision for Appeals
of the
Medicine Bow National Forest
Revised Land and Resource Management Plan**

PROCEDURAL BACKGROUND

Decision Under Appeal

This is my consolidated decision on six appeals of the Record of Decision (ROD) for the Final Environmental Impact Statement (FEIS) and the Revised Land and Resource Management Plan (LRMP or Forest Plan) for the Medicine Bow National Forest (NF). The issues in these appeals were found to be sufficiently similar to allow consolidation (36 CFR 217.13(b)), so all appeals of the Medicine Bow Forest Plan have been consolidated. The appeals are referred to throughout this document by their tracking numbers, abbreviated to the last four digits.

Regional Forester Rick D. Cables signed the ROD for the Medicine Bow FEIS and Forest Plan on December 29, 2003. The Medicine Bow NF LRMP was developed pursuant to the 1982 implementing regulations for the National Forest Management Act (NFMA) at 36 CFR 219, as amended. The 1982 implementing regulations were replaced by the November 7, 2000 planning rule (36 CFR 217 and 219), which included a transition period that allowed forest plan revisions or amendments already in progress to continue under the 1982 rule. On May 17, 2001, the Forest Service extended the transition period by one year (FR 27552), and on May 20, 2002, the Forest Service extended the transition period until adoption of a new rule (FR 35451). In adherence to the transition provision, the revision of the Medicine Bow Forest Plan was done according to the requirements of the 1982 NFMA implementing regulations. The Regional Forester transmitted the records for the appeal to the Chief of the Forest Service in conformance with the regulations at 36 CFR 217.15(a).

Participants

A total of seven appeals were submitted pursuant to the regulations at 36 CFR 217. One appeal was dismissed for not having been filed in accordance with the requirements of 36 CFR 217. The remaining six appeals were considered in my decision. Two of those six appeals were submitted by the same individual representing different organizations and are essentially identical. A listing of the appellants is included in Appendix A.

Appellant Jeremy Nichols for the Biodiversity Conservation Alliance and the Center for Native Ecosystems included with his notice of appeal a request to intervene on any and all other appeals to the revised Forest Plan. He was granted that request on June 8, 2004, and provided copies of the other appeals. No comments were received from Mr. Nichols on those appeals.

Each appellant will receive a copy of this appeal decision. This final appeal decision is also being posted on the Forest Service Internet site at <http://www.fs.fed.us/emc/applit/nhappdec.htm>

Summarized Request for Relief

Each appeal included multiple requests for relief. Most requested a full or partial reversal of the Forest Plan decision. All of the requests were tied to specific appeal issues, such as requests to correct an alleged deficiency in analysis of environmental effects or change the allocation of certain Management Area prescriptions. Requests also included such measures as adding to the range of alternatives considered in detail, lifting restrictions on snowmobile use in some areas, and withholding authorization of certain activities until an amendment to the Forest Plan is completed that would address alleged deficiencies in the Forest Plan and FEIS. The specific requests for relief are not detailed in this appeal decision because of their number and variety.

Requests for Stay

The regulations covering appeal of national forest land and resource management plans at 36 CFR 217.10 provide for the consideration of appellants' written requests to stay the implementation of a project or activity included in a land and resource management plan pending completion of the appeal review and decision by the Reviewing Officer. One appellant requested a stay of implementation included as part of the "requested relief." The request specified that until completion of a new amendment to the Revised Forest Plan, the Medicine Bow National Forest must not "authorize and/or implement any timber harvesting, domestic livestock grazing, mineral development, special-use permit, or other development that would adversely impact any threatened or endangered species and its critical habitat." This request was denied by the Reviewing Officer for the Chief because it was a request to stay the implementation of an approved land and resource management plan rather than a specific project. The regulations at 36 CFR 217.10(b) state that such a request shall not be granted.

DECISION SUMMARY

Summary of Issues

This appeal decision is the result of a deliberative and extensive review process. My review of appellants' concerns provides a focused response to contentions involving complex regulatory and management issues. Although not every contention made in the appeals is cited in the same order or format in this decision, all appellants' concerns have been considered. My appeal review focused mainly on compliance of the ROD, Final Environmental Impact Statement (FEIS), and Medicine Bow NF LRMP with applicable law, regulation, and policy as cited by appellants. This document has been organized accordingly.

Appellants raised a number of appeal issues concerning procedural and planning considerations, as well as a wide range of natural resource issues, which included water quantity and quality, fire and forest fuels, forest management, wildlife, snowmobile access, and Wild and Scenic River recommendations. Appellants contend the decision is not in compliance with the National Forest Management Act (NFMA); National Environmental Policy Act (NEPA); Endangered Species Act (ESA); Wild and Scenic Rivers Act; Executive Orders pertaining to off-highway vehicle management; and Forest Service Manual (FSM) directives for Sensitive species and site-specific decisions and analysis.

Decision

My consolidated decision is based on a thorough review of the appeal contentions and the Appeal Record. Based on that review I have determined that, with the exceptions noted below, the Regional Forester met the requirements of applicable Federal law, regulation, and policy. I affirm the Regional Forester's decision to select Alternative D FEIS from the Medicine Bow National Forest FEIS for the Revised Land and Resource Management Plan, with the following exceptions and instructions:

Reversals

I am reversing, in part, the Regional Forester's decision to approve Infrastructure Standard 1 and Transportation Standard 1 for Management Area 1.31, and Recreation Standard 1 for Management Area 3.5. The Regional Forester is instructed to rewrite these standards so that they do not imply site-specific decisions have been made for the closure of areas or trails to existing snowmobile uses. The discussion related to these standards is under "National Directives, Site-Specific Decisions and Analysis," on pages 65-67 of this decision.

Instructions

The Regional Forester is instructed to review the management of bighorn and domestic sheep in light of the viability determination for bighorns disclosed in the FEIS. Ongoing sheep management must be aimed at maintaining the Laramie, Douglas Creek, and Encampment bighorn herds and must be supported by appropriate management direction in the LRMP. The Medicine Bow NF should refer to the Final Report and Recommendations from the Wyoming State-wide Bighorn/Domestic Sheep Interaction Working Group, issued subsequent to the LRMP, and appropriately consider the report recommendations in implementing administrative actions and

adjusting management direction. During this process, the Forest shall consult with affected State agencies, as well as Regional range and wildlife program managers. The discussion related to viability of bighorn sheep is under “National Forest Management Act, Fish and Wildlife Resource, Bighorn Sheep Viability Analysis,” on pages 26-29.

The Regional Forester is instructed to supplement the FEIS with documentation of how the established evaluation and selection criteria were utilized to evaluate Browns Peak for designation as a Research Natural Area; to disclose in the FEIS how snowmobile use in Browns Peak would modify ecological processes or otherwise interfere with the objectives for which the area was designated; and, correct discrepancies between the LRMP and FEIS regarding the use of snowmobiles in the six RNAs. The discussion related to evaluation of potential Research Natural Areas is under “National Forest Management Act, Research Natural Areas,” on pages 32-36 of this decision.

The Regional Forester is instructed to supplement the FEIS to explain the basis for the assertion that trail use can contribute to the propagation and spread of whirling disease in trout. The discussion related to analysis supporting the disclosure of environmental consequences associated with trails and trail use is under “National Environmental Policy Act, Methodology and Scientific Accuracy, Effects of Trails and Trail Use,” on pages 45-47 of this decision.

The Regional Forester is instructed to meet with representatives of the Medicine Bow National Forest Plan Coalition to provide more specific description of how the Coalition Alternative is reflected in components of other alternatives considered in detail and how the Coalition’s input was otherwise utilized in preparing the FEIS and LRMP. The discussion related to consideration of the Coalition Alternative is under “National Environmental Policy Act, Medicine Bow National Forest Plan Coalition Alternative,” on pages 53-58 of this decision.

Water Resource Management Direction

The issue of water yield was raised in several contentions. It was noted during the review of these contentions that not all forest plan standards related to water and water rights are consistent with the direction provided in appeal decisions for other national forests in the Rocky Mountain Region.

Departmental discretionary review decisions of the Chief’s appeal decisions for the Rio Grande, Routt, Arapaho-Roosevelt, and White River National Forests’ LRMPs all included instructions to include forest plan management direction that complies with the Federal Land Policy and Management Act (FLPMA). The relevant section of FLPMA for water resources requires that “[e]ach right-of-way shall contain (a) terms and conditions which will (i) carry out the purposes of this Act,” in order to “minimize damage to scenic and aesthetic values and fish and wildlife habitat and otherwise protect the environment” (Section 505). To better achieve compliance with Section 505 of FLPMA, the Arapaho-Roosevelt and White River National Forests were each directed to reword a standard in their plans to read:

Cooperate with state, tribal and local governments, holders of water rights, and other interested parties to manage water resources to minimize damage to scenic and aesthetic values, fish and wildlife habitat, and to otherwise protect the environment.

No such standard is found in the Medicine Bow NF LRMP.

Further, the Department's discretionary review decision of the Chief's appeal decision for the White River NF LRMP reiterated Four Cornerstones¹ for managing water resources on National Forest System lands and found that several of the water standards in that Forest's plan were ambiguous, inflexible, and in some cases, unachievable. As such, those standards created an increased potential for legal and public conflict, contrary to the intent of the Four Cornerstones. Several of those same standards are found in the Medicine Bow NF LRMP, including Forestwide Water and Aquatic Standards 4-8.

The Regional Forester is instructed to review all LRMP water resource management standards for consistency and compliance with prior Departmental and agency direction, and pertinent case law, and to make all necessary changes to management standards, as appropriate, through correction or amendment.

This decision is the final administrative determination of the Department of Agriculture, unless the Secretary elects to review the decision within 15 days of receipt (36 CFR 217.17(d)). By copy of this letter and notification of availability on the World Wide Web, I am notifying all parties to this appeal.

¹ The Four Cornerstones, originally identified in the discretionary review of the Chief's appeal decision for the Arapaho-Roosevelt NF revised LRMP appeals, are:

The Department recognizes and respects the authority of States to allocate water available for appropriation, and to manage water quality under the Clean Water Act.

The Department respects valid, existing water rights.

The USDA Forest Service is responsible for managing water uses on National Forest System lands consistent with both State and federal law, as required under the Organic Administration Act of 1897, the Multiple-Use Sustained-Yield Act of 1960, and the Federal Land Policy and Management Act.

Water resource management objectives on National Forest System lands will be managed through cooperation with States, other federal agencies, tribal governments, local government, holders of valid water rights, and other interested parties, rather than through unilateral regulatory action on the part of the Forest Service.

FOREST PLANNING ON THE MEDICINE BOW NATIONAL FOREST

The original Medicine Bow National Forest Land and Resource Management Plan was approved on November 20, 1985. It has been amended 18 times (Medicine Bow National Forest Final Environmental Impact Statement for the Revised Land and Resource Management Plan, December 2003).

In December 1992 the Medicine Bow National Forest and Thunder Basin National Grassland began work to revise its 1985 Land and Resource Management Plan. The National Forest and Grassland published its Purpose and Need/Planning Criteria document in September 1993. In early 1995 the Medicine Bow National Forest and Thunder Basin National Grassland were administratively combined with the Routt National Forest, which had itself initiated a revision of its forest plan. About this same time planning for the National Grassland was shifted to the Northern Great Plains Management Plans Revision effort.

With both the Medicine Bow and Routt National Forests engaged in revising their forest plans, the decision was made to delay further work on the revision of the Medicine Bow plan until the Routt Plan Revision was completed. The Routt revised plan was approved in February 1998 and the Notice of Intent to Revise the Medicine Bow Forest Plan was published in the Federal Register in October 1999.

Input from the public was used by the interdisciplinary team to develop a range of alternative themes, and then forest plan alternatives. The alternatives and analysis of their anticipated environmental consequences were documented in a draft environmental impact statement, which was released to the public for review and comment in December 2002. Comments were reviewed by the interdisciplinary team members and used to make modifications to the alternatives, environmental analysis, and management direction in the revised forest plan. A Record of Decision approving the revised forest plan was signed by the Regional Forester for the Rocky Mountain Region, Rick D. Cables, on December 29, 2003. A legal notice of the decision was published in the Denver Post on January 20, 2004, initiating a 90-day filing period for administrative appeals as required by 36 CFR 217.

The standards contained in the Medicine Bow Forest Plan operate as parameters within which projects must take place. Any project or activity authorized by the Forest Service must be consistent with these management standards (16 U.S.C. 1604(i)). If a project cannot be conducted within these parameters, the project cannot go forward, unless the plan is amended to allow for project execution. This Plan is permissive in that it allows, but does not mandate, certain activities. Approval of the Medicine Bow Forest Plan does not mandate any project decisions. Projects occur only after they are proposed, their effects on the environment are considered, and a decision is made to carry out the project.

In summary, the Medicine Bow Forest Plan establishes a framework for decisionmaking, using programmatic direction as a gateway for compliance with environmental laws at the project level.

RESPONSE TO ISSUES

Organization of This Decision

The content requirements for appeals submitted pursuant to 36 CFR 217 include statement of the reasons for objecting, including issues of fact, law, regulation, or policy. Consequently, the contentions, along with the agency's response, have been organized primarily by law, regulation, and policy alleged to have been violated. Where appropriate, contentions and responses have been further grouped by relevant section of the law or regulation, or by chapter within the Forest Service directives system.

Each contention identified from the appeals is accompanied by discussion that describes what was required of the agency and what was done, as reflected in the appeal record. Following each discussion is the decision of the Reviewing Officer for the Chief.

Administrative Procedure Act

In addition to the laws and regulations discussed herein, some appellants alleged violations of the Administrative Procedure Act (APA). The APA, which for the Forest Service has no implementing regulations, provides that a reviewing court may "hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law" (5 USC 706 (2)(A)). It is thus a statute more directly applicable at the level of judicial review. For administrative level reviews of agency decisions under administrative appeal, findings of whether agency decisions are consistent with other laws relevant to appeal issues constitute findings that those decisions are not (or are) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law, and thus are (or are not) consistent with the APA.

National Forest Management Act

Management Prescriptions

Water Yield Management Areas

Contention

Appellants contend the Plan and FEIS designate no areas as MA 5.21, Water Yield Management Areas, while providing no supporting analysis and only a reference to "Regional Policy" as the reason for that decision. The appellants also question whether compliance with the Regional policy is mandatory (NOA #0027, p. 13).

Discussion

The 1982 implementing regulations for the NFMA require that LRMPs contain "Multiple-use prescriptions and associated standards and guidelines for each management area" (36 CFR 219.11(c)). A management prescription is defined in the regulations as "[m]anagement practices and intensity selected and scheduled for application on a specific area to attain multiple-use and other goals and objectives (36 CFR 219.3).

The Appeal Record includes a memo dated July 12, 2002, from the Regional Forester to Forest Supervisors and Regional Office Staff Directors noting that the Planning Desk Guide menu of optional management area prescriptions includes Management Area 5.21, Water Yield, although “the Region has elected not to emphasize water yield increases through specific MA prescriptions in Forest Plan revisions.” The memo also provides the Regional Forester’s rationale for this approach (AR Vol. 13, pp. 5295 to 5297) and the key points of his rationale are discussed in greater detail in Appendix B of the FEIS as scientific, technical, and operational limitations on the potential for water yield augmentation from vegetation manipulation on NFS land (FEIS Appendix B, pp. 108-110). In its discussion of a Maximum Water Yield Alternative, the FEIS notes that “[i]n the first round of forest planning, Forests had the option to emphasize water yield increases through a specific management area prescription. For Forest Plan Revisions, the Region has elected not to use a specific management area prescription for water yield emphasis in light of the scientific and operational constraints as well as experience in implementing current Forest Plans” (FEIS, p. 2-21).

Forest planning regulations give Regional Foresters responsibility for establishing regional policy for forest planning and approving all forest plans in their respective regions (36 CFR 219.10(a)). In addition, forest planning responsibilities assigned to the Regional Forester through Forest Service directives include, “Coordinate planning efforts between forests within the region” (FSM 1922.04a, Item 1).

Decision

The FEIS provides appropriate explanation of the reasons for not utilizing Water Yield prescriptions in the Medicine Bow NF LRMP and the Regional Forester was acting within his established responsibilities in providing direction that the management prescription not be used. I find no violation of law or regulation.

Forest Planning Process

Monitoring and Evaluation

Contention

Appellants contend “the Revised Forest Plan prescribes no monitoring plan for Colorado cutthroat trout. Therefore, while proposed measures entirely fail to adequately protect the Colorado River cutthroat trout and its habitat, there is no monitoring in place to even measure or ensure the effectiveness of these measures” (NOA #0035, pp. 34-35).

Discussion

General requirements related to monitoring and evaluation for forest planning are found at 36 CFR 219.11(d), which states that monitoring and evaluation requirements will be included in the plan that will provide a basis for periodic determination and evaluation of the effects of management practices. The NFMA regulations further address monitoring and evaluation at 36 CFR 219.12(k) by requiring that “[a]t intervals established in the plan, implementation shall be evaluated on a sample basis to determine how well objectives have been met and how closely management standards and guidelines have been applied.”

There are no requirements in the NFMA implementing regulations to monitor specific species as part of forest plan implementation.

The Medicine Bow has, however, acquired significant amounts of data on Colorado River cutthroat trout and its habitat through other avenues in complying with Forest Service policy at Forest Service Manual (FSM) 2670 (FEIS, p. 3-23, and FEIS Appendix I, pp. 192-197). Appendix I of the FEIS displays the Biological Evaluation for sensitive species, including Colorado River cutthroat trout. The appendix contains sufficient information to describe the current distribution, status, and trends on the Medicine Bow National Forest and adjacent lands, demonstrating its compliance with policy outlined in the FSM. Additionally, the LRMP includes specific direction for management of the species (LRMP, p. 1-5), and the Regional Forester recommends Wilderness designation that encompasses important Colorado River cutthroat trout populations (ROD, p. 2). Finally, the Forest Service is signatory (April 2001) to a “Conservation Agreement and Strategy for Colorado Cutthroat Trout (*Oncorhynchus clarki pleuriticus*)” in which the Forest Service, Bureau of Land Management, Wyoming, Colorado, Utah, and private organizations agree to develop a consistent monitoring protocol for Colorado River cutthroat trout.

The Forest responded thoroughly to several public comments regarding Colorado cutthroat trout, including concerns with a perceived lack of monitoring, provided in response to the DEIS for the Forest Plan (FEIS Appendix L, pp. L-3 through L-4).

Decision

I find that the Forest is in compliance with NFMA regulations and agency policy with respect to its monitoring of the Colorado River cutthroat trout. I find no violation of law or regulation.

Timber Resource Land Suitability

Lands Not Suited For Timber Production

Contentions

Appellant contends that the determination of timber resource land suitability and the determination of allowable sale quantity are inadequate and in violation of NFMA, NEPA, and 36 CFR 219.14. More specifically, the appellant contends the Forest Service has failed to exclude hydric soils, old growth tracts, cost inefficient lands, certain high elevation lands, lands along roads and trails, and the Sheep Mountain Special Area from the land base suitable for timber production (NOA #0036, pp. 2, 3, 4, and 5).

Discussion

The National Forest Management Act of 1976 (NFMA), which amended the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA) (P.L. 93-378, 88 Stat. 476, 16 U.S.C. 1600-1614) requires that land management plans “identify lands within the management area which are not suited for timber production, considering physical, economic, and other pertinent factors” (16 U.S.C. 1604 (k)). In addition, NFMA directs that “timber will be harvested from National Forest System lands only where soil, slope, or other watershed conditions will not be irreversibly damaged” (16 U.S.C. 1604 (g)(3)(E)(i)).

The 1982 implementing regulations for the NFMA further elaborate on timber resource land suitability, specifying that land shall be identified as *not suited* for timber production if: the land is not forest land; technology is not available to ensure timber production without irreversible resource damage to soils productivity or watershed conditions; there is not reasonable assurance that such lands can be adequately restocked; or the land has been withdrawn from timber production by an Act of Congress, the Secretary of Agriculture, or the Chief of the Forest Service (36 CFR 219.14(a)).

In addition, lands are to be considered *not appropriate* for timber production if: the land is proposed for resource uses that preclude timber production; other management objectives for the alternative limit timber production activities to the point where management requirements cannot be met; or the lands are not cost-efficient over the planning horizon in meeting forest objectives (36 CFR 219.14(c)). The regulations further state “[l]ands identified as not suited for timber production...and lands tentatively identified as not appropriate for timber production ... shall be designated as not suited for timber production in the preferred alternative” (36 CFR 219.14(d)).

Forest Service Handbook (FSH) 2409.13, Chapter 20 provides guidance for the determination of suitability and Chapter 30 discusses calculation of Allowable Sale Quantity (ASQ). Cost efficiency is defined and discussed in the Forest Service Manual (FSM) as “[t]he usefulness of specified inputs (costs) to produce specified outputs (benefits). In measuring cost efficiency, some outputs including environmental, economic, or social impacts, are not assigned monetary values but are achieved at specified levels in the least cost manner” (FSM 1905(17)).

Hydric Soils

The appellant contends the Forest Service failed to adequately respond to concerns regarding hydric soils and fails to remove all lands with hydric soils from the suitable timber base and thereby sets the allowable sale quantity at a level that cannot be sustained (NOA #0036, p. 3).

The FEIS describes the process used by the Medicine Bow NF to determine lands tentatively suitable for timber production (FEIS Appendix B, pp. B-6 to B-13). Non-forested cover types and riparian areas were used to delineate areas where hydric soil conditions potentially occur on the Forest (FEIS Appendix B, pp. B-5 to B-11). Based on comments received from the public, the Medicine Bow NF utilized the U.S. Fish and Wildlife Service’s (FWS) wetland GIS coverage between the DEIS and FEIS to refine timber land suitability for Alternative D (FEIS Appendix B, p. B-5; Appendix L, Comment #9, p. L-156). Using this process, about 9,000 acres were identified as having wetland characteristics (FEIS Appendix B, p. B-5). The Medicine Bow NF notes in its response to comments on the DEIS, “any additional areas identified during site-specific project analysis that fall into this category would be removed from consideration whether or not it is specifically mapped in this programmatic analysis” (FEIS Appendix L, p. L-156). Monitoring of changes to timber suitability classifications has been identified as part of the LRMP monitoring strategy for the Medicine Bow (LRMP, p. 4-23). This approach of using available data to make timber resource suitability determinations and then adjusting those determinations base on subsequent site-specific data gathering and monitoring is appropriate and compliant with regulations and Forest Service directives.

Old Growth Tracts

The appellant contends the agency failed to identify particular tracts of land that will support old growth and that because an intent of the plan is to have old growth evenly distributed across the national forest, such failure “suggests a fundamental deficiency in the draft plan.” The appellant further contends that Forest Service regulations require these lands to be identified and removed from the suitable timber base (NOA #0036, p. 2).

This same issue was raised in public comments on the DEIS and FEIS Appendix L includes a detailed and appropriate response. The response describes the rationale for incorporating these adjustments in the Spectrum model, rather than deducting these acres from the suitable timber land base (FEIS Appendix L, pp. L-152 and L-153). It explains that such a deduction would require extensive inventory and analysis, and would limit future flexibility for managing changes to old growth stands.

The FEIS generally discusses and explains the process used to determine lands tentatively suitable for timber production (FEIS Appendix B, pp. B-6 through B-13). FEIS Appendix B also includes a description of how the calculation of the allowable sale quantity (ASQ) was adjusted for old growth in the Spectrum model to account for retaining old growth in common forest types and recruitment old growth for lodgepole and spruce/fir forest types (FEIS Appendix B, p. B-15 and pages B-36 and B-37).

Appendix D of the Medicine Bow NF LRMP describes a general process for implementing the Plan that accommodates analysis at broader scales when appropriate to address particular ecosystem needs. Retention of old growth would potentially be such a need.

Cost Inefficient Lands

The appellant contends the Forest Service failed to exclude lands that are not cost efficient from the suitable timber base in accordance with 36 CFR 219.14(c)(3) and failed to prepare a proper economic analysis showing lands that should be excluded from the suitable timber base due to the costs of logging. The appellant further contends the Forest Service added 32,558 acres of suitable timber base between the draft and final documents without any explanation (NOA #0036, pp. 3-4).

Appendix B of the FEIS discusses the process used to exclude areas that are financially inefficient from the suitable timber land base. The process described in this section is in conformity with the procedure described in FSH 2409.13. On page B-11 of FEIS Appendix B, four general categories of financially inefficient lands are identified, and Table B-1 on page B-13 of FEIS Appendix B identifies how acreage of financially inefficient lands varies by alternative and compares these estimates to the 1985 Plan (FEIS Appendix B, pp B-11 through B-13). Table 3-184 compares the tentatively suitable and suitable timber land base for Alternatives D-DEIS and D-FEIS. The magnitude of the disparity in acres alleged by the appellant is not confirmed by the numbers shown on this table (NOA #0036, p. 2 and FEIS, p. 3-560). A footnote on Table 3-184 indicates the reason for the relatively minor difference in acreage totals is explained by land status updates affecting Alternative D between the time of preparing the draft and final documents (FEIS, p. 3-560).

An economic analysis to analyze the feasibility of logging operations, which the appellant contends is lacking in the FEIS, is in actuality a project-level consideration (FSH 1909.17). Appendix L of the FEIS provides an appropriate response to the issue of below-cost timber sales described in Comment # 6 by explaining that resource objectives, more than profitability, dictate the need for timber harvesting (FEIS Appendix L, pp. L-153 and L-154).

Certain High Elevation Lands

The appellant contends the final plan for the Medicine Bow excludes lands over 10,000 feet in elevation from the land base determined to be suitable for timber production while the plan for a similar Wyoming forest, the Bighorn NF, excludes stands over 9,200 feet except on south to west facing slopes where lands above 7,400 feet are excluded from the suitable timber base. This disparity suggests some high elevation lands between 7,400 and 10,000 feet may be incapable of being adequately restocked within five years but “[w]ithout more specific information, the public cannot determine whether high elevation and south and west facing slopes might ... pose problems” (NOA #0036, p. 4).

A discussion of the environmental consequences to the timber resource related to the determination of timber suitability appears on pages 3-559 to 3-569 of Chapter 3 of the FEIS. Additional discussion on page 3-556 reveals that a review of the last 15 years of monitoring reports indicates that 95 percent of all regeneration harvests have been restocked within 5 years. All suitable lands on the Medicine Bow NF are situated between 7,400 feet and 10,000 feet in elevation (FEIS Appendix L, p. L-156). This section of Chapter 3 also reveals that where regeneration is not expected to occur naturally, hand seeding has been the preferred method for reforestation. The rationale for only excluding spruce fir stands above 10,000 feet in elevation is adequately explained in this section and the FEIS also notes that a “site-specific silvicultural review is conducted prior to a final harvest and the harvest will not proceed unless there is a strong indication that the area to be harvested will regenerate within the 5-year period after harvest” as further safeguards to ensuring that these lands can be adequately restocked (FEIS, p. 3-556). Appendix L of the FEIS provides further response to this issue and states “Occasionally natural regeneration does not occur within five years for a variety of reasons such as climatic conditions, or inadequate site preparation. In these cases, the Forest Service has the option of seeding or planting” (FEIS Appendix L, Timber Comment #9, p. L-157). Such artificial regeneration methods are acceptable for restocking harvested lands.

Lands Along Roads and Trails

The appellant contends the Forest Service “claims a 100 foot buffer along primary roads and trails,” but failed to exclude those lands from the suitable timber base. Appellant further contends that “since these lands are not now available and will not likely ever be available for logging it is inappropriate to include them in the suitable timber base” (NOA #0036, p.4).

Appendix B of the FEIS includes an explanation that the Spectrum model was used to calculate visual quality effects, and a 100-foot buffer along primary roads and trails was not used in the FEIS as the contention implies (NOA #0036, p. 4 and FEIS Appendix B, p. B-10). Also, a review of the standards and guidelines in the Medicine Bow NF LRMP found nothing regarding a 100-foot buffer along primary roads and trails. With no management direction establishing a 100-foot

management buffer along roads and trails, there is no apparent reason the Medicine Bow NF should have to exclude those areas from the suitable timber base.

Forestwide Scenery Management Standard 1 requires application of the Scenery Management System to establish appropriate scenic integrity objectives. Standard 2 requires that a scenic integrity objective of Moderate be met within the foreground of all National Scenic and Recreation Trails (LRMP, p. 1-56). In Appendix L of the FEIS in response to Timber Comment #14 regarding the effects of scenic standards on the suitable timber base, the response indicates that “Forest-wide scenic standards are designed to guide site specific project design and layout. These areas can not be subtracted from the suitable base at the programmatic level. To account for the potential effects of the scenery standards, a constraint was built into the Spectrum model.” The Forest response also indicates that a sensitivity analysis of the scenery constraints in the Spectrum model determined that they were not a controlling factor (FEIS Appendix L, pp. L-158 to L-159), meaning they did not alter the final output estimates.

Sheep Mountain Special Area

The appellant contends the Forest Service failed to exclude certain lands on Sheep Mountain from the suitable timber base, even though it “knows full well that neither the public or Wyoming Game and Fish Department would likely tolerate logging on Sheep Mountain” (NOA #0036, p. 5).

The Sheep Mountain area is not part of the suitable timber base as alleged by the appellant. This area was determined to be not appropriate for timber production and subtracted from the tentatively suitable land base as provided for in 36 CFR 219.14(c)(1) and FSH 2409.13, 23.3 (FEIS, Appendix B , p. B-10). The Sheep Mountain Wildlife Area occurs within Management Area 3.54 and the vegetation standard for this area is described in the LRMP as “only those vegetation management practices necessary to meet specific resource objectives other than wood production. Timber harvest in [sic] not scheduled and does not contribute to the allowable sale quantity” (LRMP, p. 2-46).

The appellant’s contention is based on a statement in FEIS Appendix B in which the process for determining timber suitability is described. As part of determining lands tentatively suitable for timber production, forest land withdrawn from timber production by an Act of Congress, the Secretary of Agriculture, or the Chief of the Forest Service must be identified and subtracted from the gross acreage of National Forest System lands (36 CFR 219.14(a)(4)). The statement referred to by the appellant explains that the Sheep Mountain Game Refuge area was included with forest land tentatively suitable for timber production because “timber production is not precluded in its designation” [emphasis retained] (FEIS Appendix B, p. B-6). The area was, however, removed from the suitable timber base at a later step.

Decision

I find that the Medicine Bow NF LRMP and FEIS comply with law, regulation, and policy related to the determination of lands suitable for timber production.

Timber Resource Sale Schedule

Culmination of Mean Annual Increment

Contention

Appellants contend the Spectrum model was inappropriately constrained by setting an age for culmination of mean annual increment (CMAI) that is earlier than indicated by the best available forestry information. Specifically, the appellant contends it is “arbitrary and capricious to set the Spectrum model at 110 years for age at first harvest, when the best available forestry information shows that 120 years is the logical minimum” (NOA #0035, p. 55).

Discussion

The 1982 planning regulations at 36 CFR 219.16(a)(2) provide direction to be used in making determinations of the appropriate long-term sustained-yield capacities, base sale schedules, and departure alternatives to the base sale schedules. The direction requires the Forest Service to “assure that all even-aged stands scheduled to be harvested ... will generally have reached the culmination of mean annual increment of growth. ... Alternatives which incorporate exceptions to these standards are permitted for the use of sound silvicultural practices, such as thinning or other stand improvement measures” (36 CFR 219.16(a)(2)(iii)).

Appendix B of the FEIS provides details of the analysis process, including how silvicultural prescriptions were incorporated into the Spectrum model. Harvest timing choices for management area prescriptions 3.32, 4.22, 4.31, 5.13, 5.15, 5.21, and 5.4 were based on culmination of mean annual increments for lodgepole pine, spruce/fir, and ponderosa pine as determined from a query of stand data. The appendix explains:

For seedlings, saplings and the regenerated stand, CMAI is at age 120 for lodgepole pine, and 100 for ponderosa pine. CMAI for spruce/fir is generally higher than other species (130-140 years). However, the model was set to age 110 to allow the first step of a two or three step shelterwood to occur prior to the regeneration harvest which would occur after CMAI is reached (FEIS Appendix B, page B-24).

The first cut of a two- or three-step shelterwood cut is not a regeneration harvest. Typically, this preparatory cut is done, 10-15 years prior to the regeneration cut in the case of a two-step shelterwood and 15-30 years prior to the regeneration cut in a three step shelterwood, to create conditions that are more conducive to the regeneration of a new stand. Use of these preparatory cuts constitute a sound silvicultural practice to ready these stands for the regeneration harvest that, in this instance, will happen after CMAI under the Spectrum model.

Decision

I find that the reason for using an earlier age of initial harvest for seedlings, saplings, and the regenerated stands of spruce/fir within the Spectrum model was adequately explained in Appendix B of the FEIS and is consistent with the applicable planning regulations at 36 CFR 219.16.

Fish and Wildlife Resource

Viability Analysis and Management Direction for Sensitive Species

Appellants make a number of contentions regarding the protection and management of Forest Service Sensitive species. Regarding all the species specifically named, appellants contend the Forest Service failed to complete viability assessments, stating the Forest Service “has no basis for which to conclude that the Medicine Bow plan revision will maintain viable and well distributed populations of many native species” (NOA #0035, p. 14), and further contend no data was presented on population abundances, trends, or distribution (NOA #0035, p. 17). For many of these same species appellants also contend standards and guidelines necessary to protect the species, or their habitat, are missing or inadequate. These contentions are described and discussed in more detail after the following background on agency direction pertaining to species viability and forest plan standards and guidelines.

Viability

The 1982 NFMA regulatory requirement pertaining to viability is to manage fish and wildlife habitat to maintain viable populations of existing native and desired non-native vertebrate species in the planning area (36 CFR 219.19 and 219.27). The regulations at 36 CFR 219.19 specify that

For planning purposes, a viable population shall be regarded as one which has the estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area. In order to insure that viable populations will be maintained, habitat must be provided to support, at least, a minimum number of reproductive individuals and that habitat must be well distributed so that those individuals can interact with others in the planning area.

Various sections of the Forest Service Manual address viability, particularly FSM 2620 and 2670, which include policy statements such as the following: “Management of habitat provides for the maintenance of viable populations of existing native and desired non-native wildlife, fish, and plant species, generally well-distributed throughout their current geographic range” (FSM 2622.01(2)); “Maintain viable populations of all native and desired non-native wildlife, fish and plant species in habitats distributed throughout their geographic range on National Forest System lands” (FSM 2670.22(2)).

No specific procedure or methodology is required by law, regulation, or policy for conducting a species viability evaluation when comparing the effects of forest plan alternatives. Whatever process is used must comply with the general requirements in the NFMA regulations, use the best available data, and, as part of compliance with NEPA regulations, adhere to scientific integrity (40 CFR 1502.24).

The regulations do require the forest plan, and therefore the accompanying analysis, to address factors such as habitat abundance and habitat distribution. However, there is no requirement, as appellants contend (see above), to have “quantitative population data” for any species when developing a forest plan.

Standards and Guidelines

One of the basic principles of the 1982 NFMA regulations is the “[e]stablishment of quantitative and qualitative standards and guidelines for land and resource planning and management” (36 CFR 219.1(12)). The regulations require that LRMPs contain “Multiple-use prescriptions and associated standards and guidelines for each management area” (36 CFR 219.11(c)). Definitions are provided for the terms *goal*, *objective*, and *management prescription* at 36 CFR 219.3, but *standard* and *guideline* are not defined.

The NFMA regulations also specify “management requirements” for accomplishing National Forest goals and objectives (36 CFR 219.27). The management requirements “guide the development, analysis, approval, implementation, monitoring and evaluation of forest plans” (§ 219.27). Management requirements for LRMP implementation, based on those specified in § 219.27, are usually included among the standards and guidelines in a forest plan.

The Medicine Bow NF LRMP defines *standards* as “actions that must be followed or are required limits to activities in order to achieve forest goals” (LRMP, p. 1-25). *Guidelines* are defined as “advisable courses of action that should be followed to achieve forest goals” (LRMP, p. 1-25). Numerous standards and guidelines are provided as part of forestwide management direction (pp. 1-25 to 1-63) and as part of management direction for individual management areas (pp. 2-5 to 2-80).

Boreal Toad

Contentions

Appellants contend the boreal toad will not benefit from implementation of the LRMP and that “[i]mpacts associated with domestic livestock grazing, stream crossings, and most likely other forest management activities strongly indicate the MBNF will be contributing to a loss of viability of the boreal toad” in violation of the NFMA and NFMA implementing regulations (NOA #0035, p. 20). Appellants further contend the Medicine Bow NF LRMP contains no specific prohibitions of domestic livestock in riparian areas, wetlands, or streams where boreal toads are known to exist or where there is a “high potential” for occurrence. They contend Forestwide Livestock Use Guideline 3, which calls for the use of current best management practices for domestic livestock grazing, is inadequate to protect boreal toads and their habitat and that the Medicine Bow NF LRMP and FEIS “provide no information or analysis showing that these so-called ‘best management practices’ adequately protect boreal toad” (NOA #0035, p. 20).

Discussion

The best management practices (BMPs) referenced by appellants are only part of the management direction in the LRMP relevant to boreal toad habitat and populations. Those livestock grazing BMPs are listed in the LRMP (LRMP, p. 1-34), but Forestwide Threatened, Endangered, and Sensitive (TES) Species Standard 11, which directs managers to “Allow no loss or degradation of known or historic habitat for the boreal toad,” and Forestwide Water and Aquatic Standards 4, 6,

and 15, which provide for protection of riparian conditions and habitats, will also serve to conserve boreal toad habitat² (LRMP, pp. 1-44, 1-28, and 1-29).

There are two relevant issues in the contention regarding standards and guidelines, specifically the efficacy of the current best management practices (BMPs) for domestic livestock grazing, and the use of science in developing protective measures. The NFMA implementing regulations at 36 CFR 219.12(d) require the Forest Supervisor to “assure that the interdisciplinary team has access to the best available data” in the development of forest plans. The Forest is not required to develop new or additional data, and it is not required to conduct its own evaluation of information resources that have been reviewed elsewhere.

Boreal toad conservation is discussed at some length in the Biological Evaluation associated with the FEIS for the Medicine Bow LRMP (FEIS Appendix I, pp. I-186 to I-191). This evaluation discusses the current scientific literature regarding threats to, and the ecological need of, boreal toad and puts that information in the context of the local landscape and management activities on the Medicine Bow NF. The environmental consequences to boreal toad and the likelihood of its viability are disclosed therein and this disclosure takes into account the anticipated application of relevant management direction in all alternatives considered (FEIS Appendix I, pp. I-186 to I-192). The viability determination states that there is a high concern for the persistence of boreal toad because of unknown causes, but that “Forestwide standards and guidelines protecting riparian areas and wetland habitats contribute to its viability” (FEIS Appendix I, p. I-191).

Northern River Otter

Contention

Appellants contend that “because the Revised Forest Plan does not benefit the river otter, the MBNF is therefore violating its viability and diversity requirements under NFMA and NFMA implementing regulations (NOA #0035, p. 20).

Discussion

Several of the Forestwide objectives, strategies, standards, and guidelines favor the protection or enhancement of riparian and aquatic habitats required by northern river otter (LRMP, pp. 1-4, 1-29 to 1-30, 1-34, and 1-44).

The Biological Evaluation (FEIS Appendix I) discloses the available information used in the analysis concerning population status, distribution, and trend for northern river otter in FEIS Appendix I on page I-138 to I-140. With consideration of the management direction in the selected alternative, the viability conclusion is that northern river otter is “more likely” to persist on the Medicine Bow NF for 15 years and “more likely” to persist in the long-term (FEIS Appendix I, p. I-140). This analysis indicates that NFMA viability and diversity requirements would be met.

² The Biological Evaluation refers to Standard 15 as a “stringent Forestwide buffer standard” that is “an unprecedented standard among state and federal land-management agencies in the Rocky Mountains” (FEIS Appendix I, p. I-191).

Appendix L of the FEIS includes responses to public comments on management direction in the proposed LRMP and analysis of effects provided in the DEIS (FEIS Appendix L, pp. L-139, L-143).

Pygmy Shrew

Contentions

Appellants contend that there are no standards and guidelines to ensure that subnivian species, particularly pygmy shrew, and their habitat are adequately protected from snowmobiling and other winter recreation activities. The appellant contends that although Forestwide Threatened, Endangered, and Sensitive (TES) Species Standard 15 provides some direction, “this direction is extremely vague and provides no real insight into how the pygmy shrew and its habitat will be protected from snowmobiling or the ‘pattern of winter recreation’” (NOA #0035, p. 22).

Appellants further contend that “[w]ithout quantitative population data for the pygmy shrew, it is difficult to understand how the FS could possibly ... maintain the ‘estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area’” (NOA #0035, p. 21).

Discussion

Several standards and guidelines were included in the LRMP to provide protection for a host of wildlife species affected by activities that compact snow. The appellants only mention Forestwide TES Species Standard 15 as providing broad direction for managing threatened, endangered, and sensitive species. However, the LRMP includes four additional standards and guidelines to address and regulate snow compacting activities (LRMP, pp. 1-29, 1-40, 1-44, 1-47, 1-53).

There is a great deal of evidence in the record to show that these standards and guidelines provide sufficient protection for subnivian species from activities that cause snow compaction. The record includes a thorough discussion of the effects snow compaction has on a number of species of wildlife, including the pygmy shrew (FEIS, pp. 3-257 to 3-262; FEIS Appendix D, pp. D-95 to D-100; FEIS Appendix I, pp. I-26 to I-29, I-119 to I-122). The analysis concluded “[t]he largest area of snow compaction is done by snowmobiles” and logging along the edges of forested wetlands, where small populations of pygmy shrew exist, has the greatest overall impact on the population (FEIS, pp. 3-257 to 3-262; FEIS Appendix D, p. D-106; FEIS Appendix I, p. I-120).

The Biological Evaluation (FEIS Appendix I) discloses the available information used in the analysis concerning population status, distribution, and trend for pygmy shrew on pages I-119 to I-122. With consideration of the management direction in the selected alternative, the viability conclusion is that pygmy shrew is likely to persist on the Medicine Bow NF for 15 years and in the long-term (FEIS Appendix I, p. I-122), while acknowledging that information on the current status of the species on the Medicine Bow is lacking (FEIS Appendix I, p. I-121).

Limited data availability for forest planning analysis can be addressed through monitoring and project-level analysis. The monitoring strategy that is part of the LRMP includes survey data for priority sensitive species as a potential monitoring item for the planning period (LRMP, p. 4-17). Site-specific analyses will be conducted for activities proposed as part of implementing the management direction in the LRMP (ROD, pp. 51-52).

American Marten

Contentions

Appellants contend that “[t]here are no standards or guidelines that address forest fragmentation, either in relation to the marten or other species. This is especially disturbing since fragmentation of old growth forest is identified as a ‘Threat, limiting factor, and vulnerability’ for marten” (NOA #0035, p. 22). Appellants further contend the Medicine Bow NF fails to provide for a viable population of American marten because “the FEIS does not reference or provide information showing that there exists the ‘estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area’ 36 CFR § 219.19” (NOA #0035, p. 22).

Discussion

The Medicine Bow NF identified a subgoal (1.b) and associated objectives (1, 4, 5) and strategies (a, d, e, f) that provide direction for restoring, enhancing or maintaining the distribution of vegetation complexes across the Forest (LRMP, pp. 1-3, 1-4). The Medicine Bow NF further defines the desired future conditions for the Forest, which talks about maintaining the processes and structures necessary to maintain biodiversity and “ensure that these habitats support unique taxa they harbor” (LRMP, p. 1-15).

While the appellants contend the LRMP does not provide specific direction for managing fragmentation, it is clear from the record that a number of standards and guidelines were developed to address fragmentation -- for Water and Aquatic resources, Standards 4, 5, 6, 15; for Biological Diversity, Standards 1, 2, Guidelines 1, 2, 4, 5; for Rangeland Vegetation, Standard 1; for Livestock Use, Standard 3, Guideline 3; for Silviculture, Standards 5, 6, Guidelines 1, 3, 5; for Wildlife, Guidelines 2, 7; for Canada Lynx, Standards 1 (programs, vegetative activities and highway linkages), 3 and 4 (grazing) (LRMP, pp. 1-28, 1-29, 1-31, 1-32, 1-37, 1-38, 1-40, 1-44 to 1-47). There is also additional direction within some of management area prescriptions to enhance or maintain biodiversity (which affects fragmentation) (LRMP, pp. 2-5 to 2-80).

The FEIS discloses the environmental consequences of the management emphasis under each alternative on landscape spatial patterns (FEIS, pp. 3-249 to 3-251). A conclusion reached in this analysis is that “[a]pproximating the patterns created by all kinds of disturbance will provide for the best balance of patch size, shape and arrangement on the landscape and will retain connectivity and useable patches for all species. All alternatives protect riparian zones, which serve as both movement corridors and inhabited linkage zones that provide connectivity between habitats and populations” (FEIS, p. 3-249).

The Biological Evaluation (FEIS Appendix I) discloses the available information used in the analysis concerning population status, distribution, and trend for American marten on pages I-127 to I-134. This analysis explains that “[m]artens are abundant in the Medicine Bow Range and Sierra Madre and tracks are commonly seen in spruce-fir forest in winter” (FEIS Appendix I, p. I-127). With consideration of the management direction, in particular direction aimed at retaining spruce-fir old growth, in the selected alternative, the viability conclusion is that American marten is “very likely” to persist on the Medicine Bow NF for 15 years and “likely” to persist in the long-term (FEIS Appendix I, p. I-134).

The American marten is one of two MIS species specifically identified to monitor landscape and within-stand fragmentation (LRMP, p. 4-28; FEIS Appendix H, pp. H-9, H-10, H-11). Additionally, the monitoring strategy that is part of the LRMP includes survey data for MIS and priority sensitive species as a potential monitoring item for the planning period (LRMP, p. 4-17 and 4-28).

Northern Goshawk

Contentions

Appellants contend the LRMP standards and guidelines do not adequately protect northern goshawk. They specifically question the adequacy and scientific validity of the size of buffers around goshawk nests (NOA #0035, p. 24), the management of post-fledgling areas (NOA #0035, p. 24), and adequacy of protections for goshawk foraging areas (NOA #0035, p. 25). Appellants further contend the Medicine Bow NF is failing to comply with requirements to maintain viable populations of northern goshawk because, “[w]hile the MBNF seems to be implicating (sic) that viable populations of goshawk currently exist on the MBNF, in actuality the FEIS does not reference or provide information showing that there exists the ‘estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area’ 36 CFR § 219.19” (NOA #0035, p. 23).

Discussion

Forestwide standards and guidelines that provide management guidance or protection for northern goshawk are found in the LRMP on pages 1-41, 1-42, 1-44, 1-50. The size of buffers around nesting sites and in foraging areas is explained in FEIS Appendix I. The standard for protecting nest stands is justified by studies by Squires and Ruggiero (1996) on the Medicine Bow NF (FEIS Appendix I, p. I-142). Post-fledgling buffers were set to comply with raptor management guidelines established by the Utah Field Office of the US Fish and Wildlife Service (FEIS Appendix L, p. L-133).

Northern goshawk is both a Regional Forester Sensitive Species and a Management Indicator Species (MIS) on the Medicine Bow NF (FEIS Appendix I, p. I-144; and Appendix H, p. H-9). The Biological Evaluation (FEIS Appendix I) demonstrates the analysis of effects to goshawk included consideration of the most recent and relevant literature, including the Southwest Goshawk Strategy, current US Fish and Wildlife Service guidance for the conservation of goshawks, data from the Wyoming Natural Diversity Database, and independent scientific studies on goshawk ecology in Wyoming (FEIS Appendix I, pp. I-90 to I-113, and pp. I-141 to I-144).

The Biological Evaluation (BE) makes two erroneous references to the standards and guidelines for northern goshawk (FEIS Appendix I, p. I-144). These errors are corrected for the public record by the Medicine Bow NF in a published errata sheet dated February 23, 2004, (errata_3_cover_pg.pdf) and posted on the Medicine Bow NF web site at <http://www.fs.fed.us/r2/mbr/index.shtml>. The errors in the BE do not materially affect the appellants’ contentions.

The viability outcome displayed in the BE is explicitly determined based on criteria of “protection from disturbance at nests and retention of nesting and foraging habitat in current territories” (FEIS Appendix I, p. I-144). That evaluation concludes that goshawk is reasonably abundant on the

planning unit, is very likely to persist under the direction adopted by the Medicine Bow NF LRMP for the next 15 years, and is likely to persist in the foreseeable future (FEIS Appendix I, p. I-144).

The Management Indicator status of northern goshawks provides a framework in which the effectiveness of the LRMP standards and guidelines can be evaluated. A timeframe for evaluating MIS monitoring data is included in the Forest Plan (LRMP, pp. 4-17 and 4-28).

Columbian Sharp-tailed Grouse

Contentions

Appellants contend the LRMP “fails to adequately protect sharp-tailed grouse lek sites” and that they are particularly concerned that lek buffers identified in the plan are inconsistent with the recommendations of some scientists (NOA #0035, p. 25). Appellants further contend Standard 2 does not provide adequate protection, stating “If timing stipulations are not applied to the operation and/or maintenance of constructed facilities within one mile of sharp-tailed grouse leks, then the FS is failing to ensure leks are adequately protected” (NOA #0035, p. 26).

Regarding viability, appellants contend “the MBNF has no basis for concluding that sharp-tailed grouse are currently viable or that under the Revised Forest Plan, the viability of this species will be maintained. Although 8 leks exist, the FEIS provides no information or analysis showing how this related to the population status of the bird and in particular its viability as defined by regulation” (NOA #0035, p. 25).

Discussion

The FEIS for the Plan analyzes a range of buffer distances, from ¼ mile to 2 miles, within the alternatives considered (FEIS Appendix I, p. I-151). The Medicine Bow NF LRMP includes a forestwide standard (Wildlife Standard 2) prohibiting most new disturbances within one mile of sharp-tailed grouse breeding complexes during the period March 1 through June 30 (LRMP, p. 1-40). Threatened, Endangered and Sensitive Species Standard 15 is applicable to sensitive species, including Columbian sharp-tailed grouse, and will serve to further protect leks from disturbance that could result in a loss of population viability. The Medicine Bow NF’s response to public comments explains that the lek buffer width was developed consistent with recommendations from Wyoming Game and Fish Department biologists, based on their experience with buffers that have proven effective in the past (FEIS Appendix L, pp. L-131, L-206). The Medicine Bow NF considered this input to represent the best available science.

The Biological Evaluation (FEIS Appendix I) discloses the available information used in the analysis concerning population status, distribution, and trend for sharp-tailed grouse on pages I-150 to I-151. The evaluation criteria used to assess environmental consequences and viability were retention of adequate amounts and distribution of preferred habitat and protection from disturbance at leks. The Biological Evaluation, with consideration of the management direction in the selected alternative, appropriately concludes that the long-term persistence of Columbian sharp-tailed grouse on the Medicine Bow NF is “likely” (FEIS Appendix I, p. I-151).

American Three-toed Woodpecker

Contentions

Appellants contend the Medicine Bow NF has “no basis for concluding an adequate distribution of old growth will be provided for [viable populations of three-toed woodpecker] because old growth retention standards do not speak to the distribution of such habitats” and because “there is no information or analysis presented or referenced in the FEIS or supporting documentation showing that an adequate amount and distribution of old growth will be retained throughout the MBNF” (NOA #0035, p. 27).

Discussion

The 1982 NFMA implementing regulations applicable to old growth retention are found at 36 CFR 219.27(g), where it states the agency “shall preserve and enhance the diversity of plant and animal communities, including endemic and desirable naturalized plant and animal species, so that it is at least as great as that which would be expected in a natural forest and the diversity of tree species similar to that existing in the planning area.” However, the same regulations permit “reductions in diversity of plant and animal communities” where “needed to meet overall multiple-use objectives.”

The FEIS displays existing forest structure for all forest types (FEIS, Figure 3-2, p. 3-122), and summarizes age structure by cover type in Table 3-8 (FEIS, p. 3-123). The FEIS also displays how it defined old growth, acknowledges shortcomings in existing data and presents the methodology used to map and evaluate old growth (FEIS, p. 3-132). The FEIS also describes how reference conditions for the historic range of variability were determined (FEIS Appendix D, p. D-35). The Medicine Bow NF’s response to public comments (FEIS Appendix L, pp. L-134, L-141) points out that the allocation to old growth in the LRMP has increased relative to the 1985 LRMP.

Standards and guidelines pertaining to old growth are displayed in the Medicine Bow NF LRMP (p. 1-31). The standards set minimum proportional allocations for old growth for major forest types and direct the Forest to manage to these goals (Forestwide Biological Diversity Standards 1 and 2). Management direction pertaining to distribution of old growth is provided in Forestwide Biological Diversity Guideline 1, with directions to identify and map old growth blocks, maintain old growth in a pattern that is well distributed across the landscape and present in every Geographical Area, and to consider management actions that would increase connectivity between blocks (LRMP, p. 1-31).

The Biological Evaluation (FEIS Appendix I) discloses the available information used in the analysis concerning population status, distribution, and trends for American three-toed woodpecker on pages I-172 to I-175. The evaluation criteria used to assess environmental consequences and viability were retention of snags and late successional spruce-fir forest, emphasis on natural disturbance, and retention of burned forest (FEIS Appendix I, p. I-174). The Biological Evaluation, with consideration of the land allocations and management direction in the selected alternative, appropriately concludes that the American three-toed woodpecker is “very likely” to persist for 15 years on the Medicine Bow NF and is “more likely” to persist in the long term (FEIS Appendix I, pp. I-174 to I-175). Part of the consideration in reaching these conclusions was the 25% retention of spruce-fir old growth under the selected alternative.

The Management Indicator status of American three-toed woodpecker provides a framework in which the effectiveness of the LRMP standards and guidelines can be evaluated. A timeframe for evaluating MIS monitoring data is included in the Forest Plan (LRMP, pp. 4-17 and 4-28).

Loggerhead Shrike and Sensitive Amphibians

Contentions

Appellants contend the FEIS and BE neither present nor reference population data for the loggerhead shrike, northern leopard frog, wood frog, and boreal toad. Appellants further contend the population data is needed to “provide a context for the MBNF’s determination that the Revised Forest Plan will maintain ‘the estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area’ 36 CFR § 219.19” (NOA #0035, pp. 27 and 28).

Discussion

The Biological Evaluation (FEIS Appendix I) discloses the available information used in the analysis concerning population status, distribution, and trend for loggerhead shrike on pages I-179 to I-181, for northern leopard frog on pages I-181 to I-183, for wood frog on pages I-183 to I-186, and for boreal toad on pages I-186 to I-191. These descriptions acknowledge varying levels of completeness and accuracy for population data on the Medicine Bow NF. Where possible, information was obtained from other Forest Service offices, Wyoming Game and Fish Department, Wyoming Natural Diversity Database, University of Wyoming, and other knowledgeable individuals (FEIS Appendix I, p. I-114). The FEIS notes that monitoring of bird populations by the Rocky Mountain Bird Observatory was begun in 2002 and is expected to continue (FEIS, p. 3-274).

In the case of each of these species, the analysis determined there would be no difference between the alternatives in the environmental effects resulting from the management direction in the selected alternative. However, there is also some level of viability concern for each of these species. For loggerhead shrike, leopard frog, and wood frog the analysis determined the selected alternative (D FEIS) is not likely to result in a loss of viability, but that viability is still uncertain because of range-wide population declines due to unknown causes (FEIS Appendix I, pp. I-180, I-182, and I-185). Boreal toad has a low likelihood of persistence as a result of population declines of unknown cause, even though the selected alternative provides for protection of important habitat components (FEIS Appendix I, p. I-191).

The Sensitive species status of loggerhead shrike, leopard frog, wood frog, and boreal toad helps assure the effectiveness of the LRMP standards and guidelines are evaluated. The effects that management actions implementing the LRMP could have on Sensitive species are evaluated through the biological evaluation process during project planning.

Colorado River Cutthroat Trout

Contentions

Appellants contend Colorado River cutthroat trout (CRCT) are inadequately protected by the Medicine Bow NF LRMP because of a lack of standards that “prohibit livestock grazing in Colorado River cutthroat trout habitat,” or that “ensure logging and road construction do not destroy habitat for the fish” (NOA #0035, p. 34). Appellants further contend that because of

missing standards “water diversions and other water developments” may adversely impact the fish and its habitat (NOA #0035, p. 34). Appellants allege the FEIS fails to adequately disclose the impacts of the LRMP on CRCT and the viability of the species in the planning area is not appropriately ensured (NOA #0035, p. 30).

Discussion

There is no requirement in NFMA to institute specific standards or guidelines for the protection or benefit of individual species. Rather, the implementing regulations require that national forests provide for viable populations of native species, without regard to how viability is assured.

Colorado River cutthroat trout is a Regional Forester Sensitive species, and as such it is given special management consideration. A number of Forestwide objectives, strategies, standards, and guidelines that pertain to sensitive species will benefit CRCT. Most notable are Water and Aquatic Standard 15 that provides for protections within 300 feet of streams with threatened, endangered, or sensitive species; and Threatened, Endangered, and Sensitive Species Standard 15 that provides for protecting sensitive species from disturbance caused by management activities (LRMP, pp. 1-29 and 1-44).

The Forest Service is a signatory, with the States of Colorado, Utah, and Wyoming, to the Conservation Agreement and Strategy for Colorado River cutthroat trout. The agency is required by provisions of the Sikes Act (16 USC 670 et seq) to work cooperatively with Wyoming Game and Fish Department to protect and enhance CRCT and its habitat, and has a long history of doing so. In the responding to public comments on the DEIS, the Medicine Bow NF states that “Colorado River cutthroat trout (populations and habitats) are afforded the highest priority and protection in the Medicine Bow NF by both the Forest Service and the WG&FD [Wyoming Game and Fish Department],” and describes some of the cooperative efforts that demonstrate this emphasis (FEIS Appendix L, pp. L-3 to L-4). The description of cooperative efforts include plans to begin monitoring population dynamics and habitat conditions.

Threats to CRCT are identified on page 109 of FEIS Appendix D and the Biological Evaluation (BE) discloses the available information used in the analysis concerning population status, distribution, and trends (FEIS Appendix I, pp. I-192 to I-196). The BE identifies the primary threats to Colorado River cutthroat trout on the Medicine Bow NF as competition with other trout species, hybridization of other trout species, and introgression in watersheds where CRCT co-occur with populations of other trout species (FEIS Appendix I, p. I-193), but notes these factors would not likely be exacerbated by management carried out under any of the alternatives. The BE appropriately includes a determination that the selected alternative is “not likely to result in a loss of viability in the planning area,” noting that CRCT populations and distributions have improved on the Medicine Bow NF over the past 12 years due to cooperative management actions by the Forest Service and Wyoming Game and Fish Department (FEIS Appendix I, pp. I-195 to I-196).

The environmental effects to Forest Service Sensitive species such as the CRCT are evaluated through the biological evaluation process during the planning of all management activities implementing the LRMP.

Sensitive Plant Species

Contentions

Appellants contend the Medicine Bow LRMP has “no specific, unambiguous standards and guidelines related to sensitive plants in relation to the impacts of domestic livestock grazing” (NOA #0035, p. 35); and that the Forest Plan fails to “ensure any level of adequate, Forest-wide protection for sensitive plants and their habitats” (NOA #0035, p. 36).

Appellants further contend “[t]he Revised Forest Plan is remarkably silent with regards to the impacts of domestic livestock grazing to sensitive plants and their habitats. ... Consequently, the MBNF’s finding that the viability of sensitive plants will be maintained under the Revised Forest Plan is ... suspect” (NOA #0035, pp. 35-36).

Discussion

The Medicine Bow LRMP (Chapter 1) contains programmatic desired condition statements, objectives, strategies, and standards designed to protect Sensitive plants and animals alike, including SubGoal 1.b and Objective 5 (p. 1-4), Strategies e, j, and l (pp. 1-4 and 1-5), and Forestwide TES Species Standard 15 (p. 1-44).

NFMA implementing regulations do not require that species-specific standards be included in Forest Plans. It is within the Forest’s authority to address species’ protections in terms that would benefit the greatest number of species at once. Likewise, specific protections from specific activities are not required by the regulations. So long as the standards and guidelines are adequate to guide management activities, the LRMP has satisfied the NFMA requirement to protect viability.

FEIS Appendix D contains the Medicine Bow NF’s Biological Diversity Report and includes a display of the result of an analysis of threats to Regional Forester Sensitive Species of plants (pp. D-110 to D-113). Livestock are included among the threats listed for 19 of the 25 Sensitive plant species.

The direct, indirect, and cumulative effects on Sensitive plant species of implementing the LRMP are disclosed in the Biological Evaluation (FEIS Appendix I, pp. I-208 to I-326). Contrary to appellants’ contention that the FEIS is silent regarding the effects of livestock grazing, where appropriate and relevant, the disclosure of effects for each species addresses the potential effects of livestock grazing. It is fundamental to the understanding of the Biological Evaluation that the immediacy and impact of threats varies among species over the geographic area addressed by the LRMP. Consequently, a threat to Sensitive plant species from livestock grazing exists only so long as the plant occurs where grazing currently exists and only to the extent that the plant is likely to be encountered by the livestock. Furthermore, whereas a domestic animal might have an immediate and adverse impact on single plants (when grazed or browsed), NFMA viability and diversity regulations are concerned with the impact to populations rather than individuals. A summary of effects determinations are presented in FEIS Appendix I on pages I-325 to I-326. Laramie columbine has a determination of “no effect” and all other species have a determination of “may adversely impact individuals but not lead to a trend toward federal listing.”

Decision for Viability Analysis and Management Direction for Sensitive Species

The Medicine Bow LRMP provides management direction in the form of desired conditions, strategies, objectives, standards, and guidelines sufficient to maintain or improve the population status of all Sensitive species considered by the Medicine Bow (LRMP, Chapter 1).

The effects on Sensitive species of implementing the management direction in the LRMP (as well as other alternatives considered) are disclosed within FEIS Appendix I. The effects were appropriately analyzed utilizing the available information concerning population status, distribution, and trend. The Medicine Bow NF has displayed the current population status of all of the Sensitive plants and animals, and appropriately acknowledges that the level of knowledge varies among species (FEIS Appendix I). It has demonstrated the ability to gather data on the population status of its Sensitive species through forest-wide monitoring and partnerships (FEIS Appendix D, p. D-131; and FEIS Appendix I, p I-114).

Viability potential has been analyzed for all Sensitive species and appropriate determinations made. The Medicine Bow NF is in compliance with NFMA implementing regulations concerning viability for boreal toad, river otter, pygmy shrew, marten, northern goshawk, sharp-tailed grouse, three-toed woodpecker, loggerhead shrike, northern leopard frog, wood frog, boreal toad, Colorado River cutthroat trout, and sensitive plant species. I find no violation of law or regulation.

Bighorn Sheep Viability Analysis

Contention

Appellants contend that the Medicine Bow LRMP fails to assure the viability of bighorn sheep populations, in violation of NFMA regulations. Appellants state, “The presence of [d]omestic [s]heep [p]recludes the [m]aintenance of [b]ighorn [p]opulation [v]iability. The Forest Service has itself acknowledged that allowing bighorn sheep to mix with domestic sheep and goats is incompatible with maintaining a viable population of bighorns” (NOA #0035, p. 36).

Discussion

Direction concerning species viability in national forest planning is found in 1982 NFMA implementing regulations at 36 CFR 219.19; whereby the agency is required to manage fish and wildlife “to maintain viable populations of existing native and desired non-native vertebrate species in the planning area.” The regulations at the same location define “viable population” as “one which has the estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area.”

Regarding diversity, the regulations require (36 CFR 219.27(g)) that forest plans, to the extent practicable, implement management prescriptions that “shall preserve and enhance the diversity of plant and animal communities, including endemic and desirable naturalized plant and animal species, so that it is at least as great as that which would be expected in a natural forest and the diversity of tree species similar to that existing in the planning area.” The same regulation also states, “reductions in diversity of plant and animal communities ... may be prescribed only where needed to meet overall multiple-use objectives.”

Appellants and the Medicine Bow NF agree (NOA #0035, p. 36 and FEIS, p. L-207) that the most important science document pertaining to domestic and bighorn sheep interactions is Schommer

and Woolever, 2001³. The document presents a review of the impact of *Pasteurella haemolytica* on bighorn sheep. *P. haemolytica* is a bacterial disease organism that is common in domestic sheep, but rarely causes symptoms and frequently goes unnoticed. In contrast, *P. haemolytica* is fatal to 75 to 100 percent of bighorn sheep.

The transmission of *P. haemolytica* (and other disease causing *Pasteurella* species) requires physical (nose-to-nose) contact between domestic and bighorn sheep (typically a wandering young bighorn ram and a domestic ewe). A single interaction between a bighorn sheep and a *Pasteurella*-infected domestic sheep can be fatal to the bighorn and any other bighorn sheep contacted subsequent to infection (Schommer and Woolever, p. 3 at AR Vol. 23, p. 10869). Schommer and Woolever report that “No studies report any bighorn sheep herds, fenced or free ranging, that have come into contact with domestic sheep and remained healthy” (AR Vol. 23, p. 10869). This same report quotes recognized bighorn sheep experts stating, “Domestic sheep are virtually toxic to bighorn sheep” (V. Geist, Ph.D., University of Alberta); “If the wildlife management objective is to keep bighorn sheep alive, absolutely no physical contact with domestic sheep should be permitted” (W.J. Foreyt, Ph.D., Washington State University); and “segregating bighorn and domestic sheep on native ranges remains the single most effective management tool for preventing pneumonia epidemics in free-ranging bighorn sheep” (M.W. Miller, DVM, Ph.D., Colorado Division of Wildlife). The document suggests guidelines for establishing effective buffers between domestic and bighorn sheep.

The FEIS adequately describes the current condition of existing bighorn herds on the Medicine Bow NF in Chapter 3 (pp. 3-524 to 3-525) and Appendix D’s Biodiversity Report (pp. D-120 to D-123). The FEIS displays current population levels for three bighorn sheep herds on the Medicine Bow NF, State-assigned sustainable population objectives for each herd, and State-assigned priorities for management (FEIS, p. 3-524). None of the existing populations meet State population objectives. The largest herd on the Medicine Bow NF, the Laramie herd, has more than 300 individuals and a goal of 500, and is considered a Priority 2 herd by the State. For the Douglas Creek herd, which currently has just 100 sheep, the goal is 350 individuals and it is considered a Priority 3 herd. Population goals for the Encampment herd are not given. The population of this herd has remained steady at only 50 animals for the last 25 years, even though there are several Forest Service sheep allotments and private-land domestic sheep operations within and adjacent to the range of the Encampment herd. It is a Priority 3 herd.

FEIS Appendix D discusses the potential dire consequences to bighorn sheep herds from contact with domestic sheep and the likely transmission of *P. haemolytica*. The FEIS concludes that “the only way to provide for both domestic sheep grazing and bighorns is to emphasize one or the other on each mountain range (FEIS Appendix D, p. D-124). Domestic sheep grazing was consequently emphasized in the Sierra Madre range in Alternatives B through E, while “Alternative F has a standard requiring prevention of any interaction of bighorns with domestic sheep and goats, presumably by eliminating livestock grazing in all areas in or near bighorn range” (FEIS Appendix D, p. D-125). Alternatives B through E would retain the current levels of domestic livestock grazing forest-wide, and Alternative F proposed an approximately 5 percent reduction in the number of allotments on the national forest (FEIS, Table 3-12, p. 3-46).

³ “A Process for Finding Management Solutions to the Incompatibility Between Domestic and Bighorn Sheep”

Management objectives, strategies, standards, and guidelines are presented for a total of 28 Geographic Areas (GAs) in Chapter 3 of the LRMP. Management direction pertaining to bighorn sheep varies by herd. The six GAs that coincide with the Laramie Peak herd include a strategy to “[i]mplement the Laramie Peak Bighorn Sheep management plan,” and a standard to “[m]anage domestic sheep to provide adequate and effective separation from bighorn sheep, avoiding direct contact between the two” (LRMP, pp. 3-7, 3-13, 3-16, 3-19, 3-21 and 3-23). The three GAs that coincide with the Douglas Creek herd include the same standard as for the Laramie Peak herd and a guideline to “Consider bighorn sheep management needs when conducting vegetative treatments” (LRMP, pp. 3-56, 3-67, and 3-87); and the five adjacent GAs utilize the same two items of management direction but with both as guidelines (LRMP, pp. 3-60, 3-64, 3-75, 3-80, and 3-95). The one GA that coincides with the Encampment herd includes only the same guideline found in the core GAs for the Douglas Creek herd (LRMP, p. 3-38). Guidelines are defined in the LRMP as “advisable courses of action that should be followed to achieve forest goals” (p. 1-25).

The FEIS in Appendix D lists bighorn sheep as a species of local concern (p. D-114) and includes a detailed analysis of current status, environmental consequences of the alternatives, and determinations of viability for each alternative. This analysis identifies disease transmission from domestic sheep as the primary threat to bighorn sheep viability on the Medicine Bow NF (p. D-123) and concludes that the persistence of all three existing bighorn sheep herds is “unlikely under current direction” (pp. D-123 to D-124). The viability determination for the Selected Alternative (D-FEIS) includes “the likely loss of Encampment herd,” but that the Laramie Peak and Douglas Creek herds are likely to persist over the long-term (FEIS Appendix D, pp. D-125 to D-126).

The Appeal Record reflects a clear intention to emphasize domestic sheep over bighorn sheep in the Sierra Madres, in spite of the fact that doing so would lead to the likely loss of the Encampment herd. The Regional Forester acknowledges public concern over the transmission of disease from domestic to bighorn sheep (ROD, p. 41) and indicates that additional protections were included in Geographic Areas on Laramie Peak and the Snowy Range (Douglas Creek herd) within and adjacent to known ranges of bighorn sheep herds, but makes no mention of the Encampment herd. The likely loss of one herd is rationalized in the FEIS Appendix D by stating “The Forest Service’s responsibility to maintain viable populations does not mean that populations must be maintained at 100% of potential; rather there is a balance between this requirement and other multiple use objectives” (p. D-124).

This interpretation is inaccurate for several reasons. The bighorn population on the Medicine Bow NF is currently well below 100 percent of State Herd Management Objectives (currently at approximately 40 percent of State population objectives, FEIS, p. 3-524). More importantly, the NFMA viability requirement stipulates that viable populations be well distributed across the planning area. Although it is permissible to allow sheep populations to exist at levels below the projected maximum (as is currently the case), allowing the extirpation of one or more of the three bighorn herds that currently exist on the Medicine Bow NF does not comply with the requirement at 36 CFR 219.19 to ensure the species continued existence is well distributed in the planning area. While it is true that two of the three Medicine Bow NF bighorn herds were assigned low priority ratings by the State Game and Fish Department (FEIS, p. 3-524), nowhere in the record or in State Game and Fish Department documents is there an indication that “low priority” is synonymous with “expendable.” Furthermore, there are many ways to maintain the current level

of domestic livestock grazing on the forest (e.g., meeting multiple-use objectives) without causing an adverse impact on the Medicine Bow NF bighorn sheep herds.

The Appeal Record includes multiple documents demonstrating that the threat to bighorn sheep viability resulting from the implementation of the revised LRMP was discussed in great detail over an extended period of time. Concerns were expressed by Forest, Regional, and National staff specialists that the proposed direction could threaten bighorn sheep viability and the well-distributed provision of NFMA implementing regulations (AR Vol. 23, pp. 10854-10855, and 10893-10895).

The Appeal Record indicates that other management actions and direction were considered that would improve the likelihood of maintaining viable bighorn herds well distributed across the planning unit (AR Vol. 23, p. 10854). The Record does not adequately explain why the Medicine Bow NF and the Regional Forester chose not to incorporate standards into the LRMP that would increase the likelihood of long term persistence of the Encampment herd.

Decision

Issues are raised in the Medicine Bow NF FEIS about the viability of bighorn sheep populations well distributed on National Forest System lands. This is largely due to the decision to emphasize domestic livestock (sheep) grazing over bighorn sheep in the Sierra Madres.

Compliance with the viability requirements of 36 CFR 219.19 dictates that the Medicine Bow NF be managed with the objective of maintaining all three bighorn sheep herds. However, the only management direction in the LRMP specifically addressing management of bighorn sheep in the Sierra Madres is a guideline pertaining to vegetation management. Not all of the factors threatening these herds are within the control of the Forest Service, yet reasonable attempts should be made to manage those factors that can be influenced. This could include making adjustments to existing sheep allotments within and adjacent to the range of bighorn herds to maintain the separation of domestic and bighorn sheep to the extent possible.

The Regional Forester is instructed to assure that ongoing sheep management is aimed at maintaining the Laramie, Douglas Creek, and Encampment bighorn herds and is supported by appropriate management direction in the LRMP, amending the LRMP as necessary. The Medicine Bow NF should refer to the Final Report and Recommendations from the Wyoming State-wide Bighorn/Domestic Sheep Interaction Working Group, issued subsequent to the LRMP, and appropriately consider the report recommendations in implementing administrative actions and adjusting management direction. During this process, the Forest shall consult with affected State agencies, as well as Regional range and wildlife program managers.

Management Indicator Species

Contentions

Appellants make various contentions regarding the selection of Management Indicator Species (MIS). These contentions generally fall into two categories represented by the claim the “Forest inappropriately omitted several species representing major habitat types from MIS consideration.” and that “[t]he Forest Service must collect MIS population data in order to understand the effects of management decisions made in the forest plan” Appellants are specifically concerned that the

Medicine Bow NF LRMP does not include MIS for “major habitat types” including: aspen forests, ponderosa pine forests, shrub-steppe ecosystem, alpine ecosystem, wetlands ecosystem, and old growth ponderosa pine. Appellants are further concerned that species of amphibians, invertebrates and plants were not included among the selected MIS (NOA #0035, pp. 40-47).

Discussion

The requirements for selecting MIS are found at 36 CFR 219.19(a)(1). These regulations require that

[i]n order to estimate the effects of each alternative on fish and wildlife populations, certain vertebrate and/or invertebrate species present in the area shall be identified and selected as management indicator species and the reasons for their selection will be stated. These species shall be selected because their population changes are believed to indicate the effects of management activities.

The regulations further stipulate certain categories of species that the Forest is expected to consider when developing its list of management indicators.

In the selection of management indicator species, the following categories shall be represented where appropriate: Endangered and threatened plant and animal species identified on State and Federal lists for the planning area; species with special habitat needs that may be influenced significantly by planned management programs; species commonly hunted, fished, or trapped; non-game species of special interest; and additional plant or animal species selected because their population changes are believed to indicate the effects of management activities on other species of selected major biological communities or on water quality.

The regulations require the Forest to consider animals (vertebrate and invertebrate) and plants from several categories when selecting MIS to help estimate the effects of forest plan alternatives on fish and wildlife populations. Selections are to be made “where appropriate,” and only when a specie’s population changes are believed to indicate the effects of management activities. The regulations do not require the selection of species from all taxa or all categories, or even species representing all biological communities.

Appendix H of the FEIS displays the process used to select MIS for the Medicine Bow NF. The Forest, in compliance with regulations, considered both vertebrate (including several amphibians) and invertebrate species (Table H-2), plant species, and species in each of the categories suggested in 36 CFR 219.19(a)(1) (e.g., game species, threatened and endangered species, etc). The rationale for species selected are presented on pages H-12 through H-13 and for species not selected on pages H-14 through H-18. Part of the rationale for species selected is that they are characteristic of specific vegetation types representative of major issues on the Medicine Bow (pp. H-3 to H-5).

Appellants contend the Forest Service must collect MIS population data to adequately evaluate planning alternatives (NOA #0035, p. 42). The analysis in the FEIS does make use of available data for selected MIS, consistent with 36 CFR 219.12(d). It should be noted that only two of the eight species selected as MIS in the revised LRMP were MIS in the 1985 LRMP (FEIS Appendix H, pp. H-10 to H-11). The monitoring requirements for MIS take effect once a decision to establish or revise a forest plan is made. The NF is obligated to monitor MIS throughout the life of the plan and to use that information to determine “whether standards, guidelines, and management

prescriptions for management indicators are being met and are effective in achieving expected results ... and to guide adjustments in management and to revise or refine habitat relationships information and analysis tools used in planning” (FSM 2621.5). Monitoring requirements for MIS are displayed in Chapter 4 of the Medicine Bow NF LRMP (pp. 4-17, 4-28). The guidance provided therein is consistent with meeting NFMA requirements for collecting useful population data.

Decision

I find that the Medicine Bow NF has complied with NFMA regulations regarding the selection of MIS and therefore find no violation of law or regulation.

Water and Soil Resource

Water Yield

Contentions

Appellants contend the Medicine Bow NF LRMP and FEIS dismiss water yield as a significant management goal and have “generally relegated water yield analysis to a secondary issue” (NOA #0035, p. 13). The appellant states that this treatment of the issue is not adequately explained.

Discussion

The implementing regulations for the National Forest Management Act (NFMA) require that forest planning shall provide for “[e]valuation of existing or potential watershed conditions that will influence soil productivity, water yield, water pollution, or hazardous events” (36 CFR 219.23(e)).

The FEIS does not dismiss the water yield issue as the appellant contends, but categorizes it as an “other revision topic,” which is defined as “not urgent enough to be categorized as amendment topics” (FEIS Appendix A, p. A-6). Rather the Medicine Bow NF developed Desired Conditions for several Geographic Areas (watershed or aggregation of watersheds) of maintaining long-term water quality and quantity in watersheds on the NF with the potential to capture and utilize water yield increases (LRMP, pp. 3-37 to 3-39, 3-43 to 3-45, 3-57 to 3-58, 3-69 to 3-72, and 3-93 to 3-95). This was among the changes made between the DEIS and FEIS as a result of public comment (FEIS, p. 3-17).

The FEIS discloses the affected environment for a variety of factors related to water yield in the Aquatic Resources section of Chapter 3 (FEIS, pp. 3-18 to 3-33). It also includes a thorough disclosure of the environmental consequences on water yield from several aspects of management and use of the national forest, including timber management, fire and fuels management, recreation management, and land use authorizations (FEIS, pp. 3-39 to 3-64). These disclosures are supported by documentation of the water yield analysis process in FEIS Appendix B, pages B-101 to B-112.

The water yield analysis determined that precipitation is a primary factor influencing water yield from a basin and largely determines water yield changes caused by vegetation management (FEIS

Appendix B, p. B-101). Additionally, land use authorizations were found to have a relatively large effect on the amount and timing of streamflows, but were not expected to vary by alternative.

Changes in water yield were modeled for the differences in alternatives related to timber harvest, fuels treatment, wildfire, and insect and disease (FEIS Appendix B, pp. B-101 to B-108). In regard to augmentation of water yields through vegetation management, the analysis considered scientific, technical, and operational constraints (FEIS Appendix B, pp. B-108 to B-112). One of the conclusions reached from this analysis was that modeled differences between alternatives in water yield generated by vegetation management were quite small when compared to the natural average annual water yield at the local watershed, Forest, and basin-wide scales (FEIS Appendix B, p. B-111). Forest management activities (such as water uses) which deplete water were determined to have a more significant effect on streamflow than all the vegetation management activities analyzed in the FEIS (FEIS Appendix B, p. B-111).

See also the Discussion and Decision for the “Range of Alternatives, Maximum Water Yield” section; and the “Methodology and Scientific Accuracy, Water Yield” section.

Decision

I find clear evidence in the record that water yield was adequately considered and that the appropriate level of analysis was conducted. I find no violation of law or regulation.

Research Natural Areas

Contentions

Two appeals raised issues concerning Research Natural Areas (RNAs), specifically the new Browns Peak RNA and the existing Snowy Range RNA. Regarding the Browns Peak RNA, one appellant group contends the FEIS lacks evidence “to show that whatever documentation or science that the ‘citizens’ proposing it used to support its designation was carefully reviewed” and it does not provide the public with any hard data that was used to make the decision to propose the area for designation (NOA #0028, p. 6). The second appellant contends the FEIS lacks adequate analysis to support either Browns Peak or Snowy Range “to be and to continue to qualify to be an RNA” (NOA #0032 and 0033, p. 1). This appellant also contends that while the FEIS says snowmobiling is allowed in all RNAs except those located in a Wilderness, maps show them as being closed (NOA #0032 and 0033, p. 2) and the Snowy Range RNA “is not consistent with fire prevention policies” because “hundreds of years of growth and disease” have left it “ripe for a large fire.”

Discussion

Designation

The NFMA regulations at 36 CFR 219.25 provide direction for the establishment of RNAs, including a general description of their intended purpose. Regulations covering the designation of experimental areas and RNAs at 36 CFR 251.23 authorize the Chief of the Forest Service to establish a series of RNAs, for research or educational purposes, to illustrate or typify important forest and range types in each forest region.

FSM 4063 gives further policy and selection guidance, and explains in detail the establishment process. It also delegates responsibility to the Regional Foresters, with the concurrence of Station Directors, for the approval of all new research natural areas (FSM 4063.04b(1)(a)). Once an area has been designated, the direction is that “[u]nless catastrophic circumstances significantly alter the conditions for which a research natural area was originally created such that it no longer may serve that function, the designation ... shall be in perpetuity” (FSM 4063.03).

It should be noted that 36 CFR 219.25 is a very broad statement for the provision, through the forest planning process, of “examples of important forest, shrubland, grassland, alpine, aquatic, and geologic types that have special or unique characteristics of scientific interest and importance and are needed to complete the national network of RNA’s.” FSM 4063 repeats almost verbatim this broad statement (under FSM 4063.02 – Objectives), and is not more specific on what ecosystem level the national network should be based. It does clarify what a forest (or grassland) plan analysis needs to include: “Forest plans shall include analysis of, and recommendations for, any proposed research natural areas” (FSM 4063.03). The FSM does not envision a detailed account of the process leading up to the proposed research natural areas in the EIS, but does require an analysis of any proposed areas.

As required by regulation, the Medicine Bow NF utilized the forest planning process to consider the establishment of new Research Natural Areas. A total of 17 areas were considered. Sixteen of these were selected by the Forest Service to be inventoried under a contract with The Nature Conservancy (FEIS, p. 3-343). An additional area, Browns Peak, was proposed in a number of public comments received on the DEIS and was subsequently added to two alternatives in the FEIS, including the selected alternative (FEIS, p. 3-347). Browns Peak and four other areas were allocated as new RNAs by the Regional Forester (ROD, p. 4).

A 1993 memo co-signed by the Rocky Mountain Region Director for Renewable Resources, RNA Coordinator, and the Rocky Mountain Research Station RNA Coordinator states that ecosystems of the Rocky Mountain Region are under-represented in the RNA system (AR Vol. 19, p. 8888). Attached with the memo is an RNA Guide for the Rocky Mountain Region that includes a matrix showing the Alpine Grassland and Ridge ecological series was targeted for representation in one or more RNAs on the Medicine Bow National Forest, and that the Alpine Fellfield series probably occurs on the Medicine Bow but could not be substantiated by plant association data (AR Vol. 19, p. 8894). Steering Team meeting notes in the appeal record further indicate an apparent need to include alpine ecosystems representation on the Medicine Bow NF (AR Vol. 6, p. 1141).

Another section of the Regional RNA Guide includes four criteria for evaluation and selection of RNAs. The criteria are quality, condition, viability, and defensibility, with several components described for each criterion (AR Vol. 19, pp. 8910-8915). This guide is labeled as a review draft, although the transmittal memo specifies that it is to be used for interim direction. The Guide and the evaluation criteria are referenced in the FEIS on page 3-342 as having been used by the Medicine Bow NF in the evaluation of the potential RNAs.

The FEIS lists the potential RNA areas according to whether they met the minimum evaluation criteria for designation. It does not specify which criteria were met or not met, or to what degree they were met. The Appeal Record indicates that Browns Peak did not receive exactly the same analysis as the other potential RNA areas; for example, it was not graded on quality (FEIS, p. 3-

344). Appendix L of the FEIS discloses that the five new RNAs included in the preferred alternative were selected based on public input and their potential to contribute to the regional network of RNAs (FEIS Appendix L, p. L-116).

The Snowy Range RNA was established in 1936. The purpose and need for the forest plan revision included an opportunity to expand the RNA system in the Rocky Mountain Region (FEIS, p. 1-8), but said nothing about reconsidering the existing RNA. As described above, Forest Service policy is that once an area has been designated it will remain designated in perpetuity “[u]nless catastrophic circumstances significantly alter the conditions for which a research natural area was originally created such that it no longer may serve that function” (FSM 4063.03). Neither the appellant nor the Appeal Record suggest conditions in the Snowy Range RNA have been so altered.

Protection and Management

The standards for protection and management of a research natural area are designed to preserve the special values that led to the area being recognized, and to support its basic objectives and purposes. Regulations at 36 CFR 251.23 specify that RNAs “will be retained in a virgin or unmodified condition except where measures are required to maintain a plant community which the area is intended to represent.” FSM 4063.3 specifies several protection and management standards for RNAs that must be complied with, including

1. Protect research natural areas against activities that directly or indirectly modify ecological processes. ...
- ...
5. Prohibit any form of recreational use if such use threatens or interferes with the objectives or purposes for which the research natural area is established.
- ...
7. Do not permit roads, trails, fences, or signs on an established research natural area unless they contribute to the objectives or to the protection of the area. ...

Although the direction for management of RNAs clearly intends they be maintained in a relatively primitive condition, neither the regulations nor the agency directives contain an explicit prohibition on motorized travel in RNAs.

An inventory summary of the broader Snowy Range site, which includes the area of the proposed Browns Peak RNA, indicates that the site is potentially threatened by the high level of recreation use the area receives. It states that “[t]rails are numerous and may threaten nearby plant populations if use is increased and trails are widened” (AR Vol. 19, p. 8986).

The FEIS, in its disclosure of the environmental consequences of RNA designation on recreation, includes some erroneous statements regarding snowmobile use in RNAs. One statement is that “[s]pecific provisions in federal law prohibit snowmobile riding in some specially designated areas (Wilderness Areas, Research Natural Areas (RNAs))” (FEIS, p. 3-332). Further on in the FEIS is the statement that “RNA designation prohibits motorized and mechanical uses” (FEIS, p. 3-337). These statements are incorrect as they pertain to RNAs. As explained above, current law and regulations do not specifically prohibit motorized uses in general, or snowmobiling in particular, in RNAs.

The FEIS also includes descriptions of existing and anticipated snowmobile use in the Browns Peak area that are contradictory. It explains that the Browns Peak RNA allocated in Alternative D FEIS is located near a current snowmobile use area, but that the area allocated is only a portion of the area originally proposed and considered, and “is a skree sideslope that’s too steep to snowmobile on, and so should not effect [sic] any current use” (FEIS, p. 3-332). In apparent contradiction of the prior description of environmental consequences, is the statement that designation of the Browns Peak area would “affect any snowmobile riders who currently use the area, however the RNA is on a steep, rocky slope, where the Forest Service would never recommend use” (FEIS, p. 3-337).

The appellant contends the FEIS says snowmobiling is allowed in all RNAs except those located in a Wilderness. This contention appears to be based on a statement in Appendix L, Comments and Responses, of the FEIS, where the response to RNA Comment #1 says that snowmobile use is only prohibited in the two RNAs located within Wildernesses, and that it will be monitored in the three other new RNAs and the existing Snowy Range RNA (FEIS Appendix L, p. L-114). In another contradiction, the FEIS specifically declares in its discussion of the environmental consequences of RNA designation to recreation management that motorized use is not allowed in RNAs except for research or administrative access (FEIS, p. 3-350). In fact, the relevant management direction is Transportation Standard 1 for MAP 2.2 Research Natural Areas, which directs that all motorized use, including snowmobiles, is to be limited to administrative, law enforcement, search and rescue, emergency, and scientific purposes (LRMP, p. 2-31). These inconsistencies within the FEIS and between the FEIS and LRMP have certainly introduced a point of confusion for the public.

Although the appellant contends that the Snowy Range RNA is not consistent with fire prevention policies, no specifics were provided as the basis for this contention. The standards and guidelines for MAP 2.2 Research Natural Areas clearly allow for fire suppression and prescribed fire under appropriate circumstances and conditions (LRMP, pp. 2-29 to 2-30).

Decision

The Browns Peak RNA contains ecological series that have been targeted by the Rocky Mountain Region for inclusion in an RNA. However, the Appeal Record reflects an incomplete documentation of how the Browns Peak area was evaluated for designation as an RNA. It is not clear how the evaluation and selection criteria applied to other areas under consideration were applied to Browns Peak. The basis for prohibiting motorized uses in RNAs is misstated in the FEIS and the restrictions on snowmobile use within the RNAs are described differently in Appendix L of the FEIS than they are in the Standards and Guidelines for MAP 2.2 Research Natural Areas in the revised LRMP.

I am affirming the Regional Forester’s decision regarding the designation of Research Natural Areas, but with the instruction to supplement the FEIS with documentation of how the evaluation and selection criteria were utilized for Browns Peak. The FEIS must also be supplemented to disclose how snowmobile use in Browns Peak would either directly or indirectly modify ecological processes, or threaten or interfere with the objectives or purposes for which the area was designated; and to correct the discrepancies between the revised LRMP and FEIS regarding the use of snowmobiles in the six RNAs. The information added to the FEIS should be considered to determine whether a change to the forest plan is necessary.

I find no inconsistencies between management direction for the Snowy Range RNA and Forest Service fire prevention policies. I further find that the designation of the Snowy Range Research Natural Area (RNA) pre-dated the Record of Decision for the revised LRMP and was therefore outside the scope of the decisions being made.

Species Diversity

Contentions

Appellants make two contentions related to the diversity requirements of the 1982 NFMA implementation regulations and the use of the best available information as part of meeting those requirements.

[W]hile population data is clearly available in that the shrew does not exist on the MBNF, the MBNF apparently failed to gather such information for the purposes of the Plan revision in violation of 36 CFR 219.26, which requires the FS to gather ‘quantitative data’ in order to appropriately consider diversity throughout the planning process (NOA #0035, p. 21).

[The] regulations at 36 CFR 219.26 clearly require the MBNF to gather quantitative inventory data on forest diversity, making it clear that the absence of population data is simply a result of the MBNF’s failure to comply with the clear intent of its own regulations (NOA #0035, p. 28).

Discussion

Appellants cite 36 CFR 219.26, stating that it requires the use of quantitative data in the development of the LRMP. This section of the 1982 NFMA implementing regulations states, “Forest planning shall provide for diversity of plant and animal communities and tree species consistent with the overall multiple-use objectives of the planning area. Such diversity shall be considered throughout the planning process. Inventories shall include quantitative data making possible the evaluation of diversity in terms of its prior and present condition.”

The 1982 forest planning regulations also require that the Forest Supervisor “shall obtain and keep current inventory data appropriate for planning and managing the resources under his or her administrative jurisdiction. The Supervisor will assure that the interdisciplinary team has access to the best available data. This may require that special inventories or studies be prepared” (36 CFR 219.12(d)).

The Medicine Bow NF cites and discusses population data for pygmy shrews in FEIS Appendix I, noting that little information is available regarding status and distribution on the Forest (pp. I-119 to I-122). Forest Service policy at 2670.32 directs that a biological evaluation be conducted for all projects. Under the procedures for conducting the biological evaluation (found at FSM 2672.42), the pygmy shrew, so long as it retains Sensitive species status, would be considered during the planning phase of all projects and activities. There is no requirement that new inventories be conducted during forest planning if adequate information is already available. This information presented in the FEIS satisfies the NFMA requirements at both 36 CFR 219.12(d) and 36 CFR 219.26.

The intent of 36 CFR 219.26 is informed by language at 36 CFR 212.12(d). In fact, inventories are not required where adequate data to inform the decision is already available. Planning regulations

at 36 CFR 219.26 simply state that, when inventories are conducted, they must include data of a specific nature sufficient to address the diversity issue in terms of historic and current conditions.

Decision

In both of the specific instances cited above, the Medicine Bow NF acted consistent with the appropriate regulations in the gathering and use of the best available information to provide for a diversity of plant and animal species. I find no violation of law or regulation.

National Environmental Policy Act

Range of Alternatives

Contentions were made that the Forest Service did not consider a sufficient range of alternatives with respect to water yield and protected lands. The contentions are described and discussed in more detail follow some background on regulatory direction pertaining to range of alternatives.

NEPA regulations require that an agency “rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated” (40 CFR 1502.14(a)). The regulations also state that the FEIS “shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action” (40 CFR 1502.13). The regulations do not require a range of alternatives for every component of a proposal, but rather a range of reasonable alternatives that provide different ways of responding to the purpose and need. For a proposal to revise a land and resource management plan, alternatives would thus encompass different overall management strategies, but not necessarily different individual components of those strategies.

Maximum Water Yield

Contentions

Appellant contends the FEIS failed to consider an alternative that evaluates maximum water yield, thereby “demonstrat[ing] the FS’s deviation from a basic purpose of national forests without sound scientific support for such a decision” (NOA #0027, p. 13).

Discussion

Requirements for the formulation of alternatives are described in the planning regulations at 36 CFR 219.12(f) and NEPA implementing regulations at 40 CFR 1502.14. None of the seven alternatives considered in detail within the FEIS were designed specifically to maximize water yield, although the FEIS discloses consideration of such an alternative early in the planning process and explains its eventual disposition (FEIS, pp. 2-20 through 2-21). Alternative H, the maximum timber yield alternative, was used to represent maximum water yield because the primary method for increasing water yield through forest management is to reduce the density of the forest canopy. The Regional Forester determined that this alternative did not adequately address the purpose and need for the revision of the LRMP and so it was utilized for purposes of benchmark analysis but not considered in detail in the FEIS (FEIS, p. 2-20). The effects of this alternative, including changes in water yield, were disclosed in the DEIS.

Decision

The FEIS provides adequate discussion as to why a separate alternative that maximizes water yield was not considered in detail. I find no violations of law or regulation.

Protected Lands (Wilderness)

Contention

Appellant contends the agency did not offer a reasonable range of alternatives regarding the amount of “protected land” proposed. “[S]ome range between the politically unrealistic figure of 32%, and the Agency’s proposed level of 12% should have been offered” (NOA #0036, p.2).

Discussion

The appellant’s contention makes reference to the range of acres allocated to “protected land” within the alternatives, but that term is not used in the FEIS and is not specifically defined by the appellant. However, in support of his contentions regarding this issue, the appellant included his comments on the DEIS (NOA #0036, Exhibit 1). Many of his comments on the DEIS dealt with the range in acreages recommended for Wilderness designation in the alternatives, but the comments also discussed roadless area protection. The appellant disagrees that the protection of roadless areas would accomplish the result that he was interested in, writing that “[o]nly by managing lands as wilderness, or perhaps as an RNA, is the public assured that the lands will be managed to promote the biodiversity on the Forest, to avoid fragmentation, and to assure adequate biological corridors” (NOA #0036, Exhibit 1, p. 3).

The different approaches taken by the appellant to characterize his concerns with the range of alternatives provide a good illustration to a key point in applying the range of alternatives requirements of the NEPA to the forest planning process required by the NFMA. That point is that the NEPA regulations do not require a range of alternatives for every component of a proposed action, but rather a range of reasonable alternatives that provide different ways of responding to the purpose and need. For a proposal to revise a land and resource management plan, alternatives thus encompass different overall management strategies, but not necessarily different individual components of those strategies.

For example, the FEIS and FEIS Executive Summary compare three different components of the alternatives, each of which appear to represent some aspect of the appellant’s concerns regarding protected lands and biological conservation. Additional components could also be compared.

	Percent Allocated by Alternative						
	A	B	C	D DEIS	D FEIS	E	F
Recommended Wilderness (FEIS, pp. 2-8 through 2-18)	0	0	0	6	3	<1	25
Forest where natural disturbances/processes will be primary change agent (FEIS Exec. Summary, p. 15)	20	28	35	46	45	46	72
Biological conservation emphasis (FEIS pp. 2-6 and 2-8 through 2-18)	19	14	14	19	31	34	34

Each of the seven alternatives considered in detail reflects a different management theme with a distinct set of desired conditions and management direction intended to achieve those conditions.

The alternatives were developed around six major revision topics, including biological diversity and roadless area allocation and management (FEIS, pp. 2-1 and 1-3 through 1-9). These major revision topics represent the significant issues that were used to provide a clear basis for choice among options by the decisionmaker and the public (FEIS, p. 1-10). There is no requirement that every component of the alternative management themes be evenly distributed across the range considered for the Medicine Bow LRMP.

Decision

The alternatives considered in the FEIS provide a range of management strategies. Each of these strategies provide a different combination of land allocations and management direction reflective of the respective strategy and intended to achieve the desired conditions. The range provided to the Regional Forester for consideration was reasonable and provided a clear basis for choice. I find no violation of law or regulation.

Affected Environment and Environmental Consequences

Appellants made various contentions related to the analysis of the affected environment and environmental consequences documented in the FEIS. A general discussion of the relevant regulatory requirements is provided below and then the contentions are described and discussed in greater detail. A single decision on all of these contentions is provided at the end of the section.

The NEPA implementing regulations at 40 CFR 1502.15, Affected Environment, state, “Data and analysis [regarding the affected environment] in a statement shall be commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced.”

The NEPA regulations further specify that the discussion of environmental consequences in a NEPA document

will include the environmental impacts of the alternatives including the proposed action, any adverse environmental effects which cannot be avoided should the proposal be implemented, the relationship between short-term uses of man’s environment and the maintenance and enhancement of long-term productivity

...

It shall include discussions of:

- (a) Direct effects and their significance (Sec. 1508.8).
- (b) Indirect effects and their significance (Sec. 1508.8).

...

(d) The environmental effects of alternatives...

(40 CFR 1502.16).

The Forest Service NEPA procedures add that such discussion “must be sufficient to permit an informed selection of the preferred alternative” (FSM 1922.14).

Regarding the methodologies and scientific accuracy of the analysis in an EIS, the CEQ NEPA regulations state, at 40 CFR 1502.24:

Agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements. They shall identify any methodologies used and shall make explicit reference by footnote to the scientific and other sources relied upon for conclusions in the statement. An agency may place discussion of methodology in an appendix.

The CEQ regulations also provide that “[a]ccurate scientific analysis, expert agency comments, and public scrutiny are essential,” but most importantly, “NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail” (40 CFR 1500.1(b)).

Wood Frog and Colorado River Cutthroat Trout

Contentions

Appellants contend the snowmobile closure decision is not supported by meaningful analysis and that “the FEIS fails to document adverse effects on wood frogs or Colorado Cutthroat Trout from snowmobiling on any site” (NOA #0028, p. 3). Appellants further contend “[t]here is no specific evidence provided to show that keeping snowmobiles on designated routes will improve the recovery or viability” of species (NOA #0028, p. 3).

Discussion

Appellants’ contention is flawed because it is based on the presumption that snowmobile use on the Kettle Ponds and Solomon Creek areas of the Medicine Bow is closed or restricted as part of the decisions made in the LRMP. As discussed in the “Site-Specific Decisions and Analysis” section of this document, these are site-specific decisions that the Regional Forester did not make as part of this planning effort. Site-specific analysis will be necessary if and when the Medicine Bow proposes to make decisions regarding the management of snowmobile use.

Sensitive Species

Contention

Appellants (NOA #0035) make several contentions regarding the adequacy of the effects analysis for Sensitive species conducted for the Medicine Bow NF LRMP.

The MBNF has no basis for concluding ... the Proposed Revised MBNF Forest Plan, through its winter recreation allocations and the impacts of snowmobiling, will adequately protect the pygmy shrew and its habitat (NOA #0035, p. 21).

[W]e can find no information or analysis showing that ‘maintaining residual vegetation’ is adequate to protect the [Columbian sharp-tailed] grouse and no information or analysis showing that livestock grazing on the MBNF is actually occurring in such a way that adequately protects the grouse and its habitat (NOA #0035, p. 26).

Although snag retention measures could potentially provide some protection to the three-toed woodpecker, there is actually no information or analysis presented in the FEIS that suggests the proposed retention measures are consistent with the biological needs of the three-toed woodpecker (NOA #0035, p. 27).

The FEIS and BE provide no information or analysis showing that genetically pure Colorado River cutthroat trout have expanded from their currently reduced existence or that habitat restoration is effectively leading to native trout restoration (NOA #0035, p. 34).

The FEIS and BE [Biological Evaluation] do not address stream length in relation to Colorado River cutthroat trout viability, raising serious questions over whether the MBNF has taken a hard look at the impacts of the Revised Plan to cutthroat trout (NOA #0035, pp. 29-30).

The Revised Forest Plan is remarkably silent with regards to the impacts of domestic livestock grazing to sensitive plants and their habitat (NOA #0035, p. 35).

Discussion

Impacts of snowmobiling on pygmy shrew and its habitat

The Biological Diversity Section in the FEIS provides a thorough discussion of the habitat needs and factors influencing pygmy shrew distribution on the Medicine Bow NF (FEIS Appendix I, pp. I-119 to I-122; AR Vol. 20, pp. 9504 through 9507). The Biological Evaluation concluded that loss of downed wood and disruption of habitat along the edges of wetlands are the activities most affecting this species (FEIS Appendix I, p. I-120). Conservation measures incorporated into the Plan do provide management guidance for the pygmy shrew, such as direction for the retention of snags and downed wood and specific direction related to riparian buffers (LRMP, pp. 1-28 to 1-30, 1-37 and 1-38).

The response to public comments on the DEIS explains that the greatest threat to wintering subnivian wildlife is a lack of snow cover (FEIS Appendix L, p. L-192) and that there is very little scientific data available to judge how these animals might be affected (p. L-191). Forestwide Dispersed Recreation Standard 4 mandates that the Medicine Bow NF “not allow snowmobile use or over-snow vehicle use off roads or off trails in any area where snow cover is inadequate for resource protection. Area closures approved by the Forest Supervisor will be posted, if necessary” (LRMP, p. 1-53).

Impacts of livestock grazing on Columbian sharp-tailed grouse

Appendix B of the FEIS describes the range capability and suitability analysis process used by the Medicine Bow NF to identify lands suitable for grazing (FEIS Appendix B, pp. B-42 to B-60). The outcome is a broad programmatic view of range capability and suitability that is further refined with site-specific information obtained at the project level (FEIS Appendix B, p. B-48).

The effects of livestock grazing are analyzed and disclosed in the FEIS, including the effects to threatened, endangered and Sensitive species (FEIS, pp. 3-271, 3-514 to 3-545; FEIS Appendix D, p. D-107). Specifically, for the Columbian sharp-tailed grouse, the Biological Evaluation (BE) states that the species needs mid to tall grassland habitat conditions (FEIS Appendix I, p. I-150).

The Medicine Bow NF LRMP is designed to promote a desired vegetation condition of 10-20 percent in early seral, 60-80 percent in mid seral, and 10-20 percent in late seral stages (LRMP, p. 1-24). Several Forestwide standards and guidelines guide grazing activities on the Medicine Bow NF and provide for coordination with habitat needs of wildlife, including sharp-tailed grouse. In the Plan’s Biological section, one standard is to manage vegetation toward a desired plant community, vegetative condition, or seral status, to be determined during the development of

Allotment Management Plans. Another standard requires that there be coordination of “livestock grazing on rangelands to provide adequate cover and forage for wildlife” (LRMP, p. 1-32). Rangeland forage utilization guidelines are displayed in LRMP Tables 1-7 and 1-8 (pp. 1-33 and 1-34).

The analysis in the BE identifies threats from overgrazing as one of the threats to the subspecies, although there is no specific analysis related to the effects of grazing on this species. “Forestwide standards for grazing utilization by livestock are the same for Alternatives A through E. Though Alternative F has somewhat reduced utilization standards, grazing in sharp-tail breeding habitat [Southwest side of the Sierra Madres] can be adjusted to meet the species needs” (FEIS Appendix I, p. I-151). The BE displays the viability outcomes (FEIS Appendix I, p. I-151) and impact determinations for Columbian sharp-tailed grouse (p. I-206).

Impacts of snag retention requirements on three-toed woodpecker

The Medicine Bow NF LRMP displays the standard for snag retention by major forest type (LRMP, p. 1-37).

The Biological Diversity Section in the FEIS provides a thorough discussion of the distribution and availability of forested cover types, disturbance factors (man-caused and natural), and snag and coarse wood resources on the Medicine Bow NF (FEIS, pp. 3-96, 3-100 to 3-109, 3-112 to 3-129, 3-131 to 3-151; FEIS Appendix D, pp. D-22 to D-28, D-31 to D-92). Appendix B of the FEIS explains the biological diversity analysis process used by the Medicine Bow NF to model the effects of the alternatives on cover type and snag and coarse woody resources (FEIS Appendix B, pp. B-113 to B-134). Snags and coarse woody resources are specifically analyzed in Appendix D of the FEIS (FEIS Appendix D, pp. D-79 to D-85), which discloses existing snag densities (FEIS, p. D-80), snag recruitment rates, and the range of natural variability for snags (FEIS, pp. D-79 and D-81, respectively).

The Biological Evaluation states the three-toed woodpecker has a strong affinity for snags and that timber harvest activities have the greatest impact on this resource (FEIS Appendix I, p. I-173). The three-toed woodpecker is also identified as a Management Indicator Species for the snags management issue, and the effects of the various alternatives on the species were analyzed and disclosed in the FEIS (FEIS, pp. 3-283 to 3-284, 3-286 to 3-293).

Existing condition of Colorado River cutthroat trout

In the Aquatic Resource section of the FEIS, aquatic biota is thoroughly discussed in the FEIS (FEIS, pp. 3-15 to 3-64). The conclusion reached in the FEIS is that Colorado River cutthroat trout “have diminished populations and habitat because of competition and hybridization with introduced rainbow and brook trout” (FEIS, p. 3-23). Recreational fishing is also mentioned as possibly affecting Colorado River cutthroat trout because “increased fishing pressure is likely to result in increased illegal harvest and increased incidental fisheries mortality” (FEIS, pp. 3-49, 3-50).

The conclusion reached in the BE is that “[t]he historical distribution of the species is much smaller today than it was 150 years ago; much of its former river habitats (mainstem) has been lost due to non-native trout introductions” (FEIS Appendix I, p. I-192; AR Vol. 12, p. 4527).

Competition from non-native species, hybridization with rainbow trout, and introgression with other subspecies of cutthroat trout are the most serious threats to Colorado River cutthroat trout and its habitat (FEIS Appendix I, pp. I-193 to I-196). Recreational fishing can cause intended or unintended mortality to individual fish” (FEIS Appendix I, p. I-192). The BE identifies streams which currently contain genetically-pure self-sustaining populations of Colorado River cutthroat trout (FEIS Appendix I, p. I-192, I-194).

While the appellant challenges the efficacy of restoration activities mentioned in the BE as providing benefit to Colorado River cutthroat trout, all factors influencing Colorado River cutthroat trout must be included in the discussion to determine if restoration efforts contribute to native trout restoration. This is exactly what the BE does.

Impacts of the LRMP to Colorado River cutthroat trout

Effects to Colorado River cutthroat trout are displayed in the BE (FEIS Appendix I, pp. I-192 to I-196). The BE also identifies that the primary threats to Colorado River cutthroat trout on the Medicine Bow NF are competition from other trout species, hybridization with other trout species, and introgression in watersheds where Colorado River cutthroat trout co-occur with populations of other trout species (FEIS Appendix I, p. I-193).

In the responses to public comments (FEIS Appendix L, pp. L-3 to L-4), the Medicine Bow NF states that “Colorado River cutthroat trout (populations and habitats) are afforded the highest priority and protection in the MBNF by both the FS and the WG&FD.”

Colorado River cutthroat trout is a Regional Forester Sensitive Species and, as such, it is given special management consideration. The FEIS discloses how forestwide standards, guidelines, objectives, and strategies in the LRMP that pertain to sensitive species will benefit Colorado River cutthroat trout. The Forest Service is a signatory to the species-wide Conservation Agreement and Strategy. The Forest Service is required to work cooperatively with Wyoming Game and Fish Department to protect and enhance Colorado River cutthroat trout and its habitat, and has a long history of doing so. The Forest Service cooperates with State agencies to conduct monitoring of Colorado River cutthroat trout on the Medicine Bow NF.

Because the Colorado River cutthroat trout is a Sensitive species, the Forest Service will prepare a BE for any proposed project that may affect it.

The Medicine Bow NF is not required to use every piece of data concerning Colorado River cutthroat trout in the development of its management direction for that species. It is required to utilize the best available information to address the threats to, and needs of, species. Given the nature of existing threats to the fish, and the amount of effort being expended on its behalf in the context of the ongoing restoration program, concerns over occupied stream segment lengths seem minor. Ongoing restoration and habitat improvement actions being taken by the Medicine Bow NF in cooperation with the Wyoming Game and Fish Department (see FEIS Chapter 3, Aquatic Resources section) will improve the status of Colorado River cutthroat trout (see the Desired Condition Statements for Geographic Areas, Medicine Bow NF LRMP Chapter 3).

Impacts of domestic livestock grazing on sensitive plants and their habitat

The FEIS provides a summarized disclosure of effects on Sensitive species, including plants, by alternative in the Single Species Analysis section of Chapter 3 (FEIS, pp. 3-171 to 3-173). A more detailed discussion of these species, including direct, indirect, and cumulative effects of the alternatives, is provided in the FEIS appendices. The Biodiversity Report (FEIS Appendix D) displays a matrix of threats for Sensitive (pp. D-110 to D-113) and local concern plants (pp. D-114 to D-116). The Biological Evaluation documents a detailed analysis of Sensitive plant species (FEIS Appendix I, pp. I-209 to I-326), and grazing impacts to plants are mentioned more than two hundred times. The FEIS and FEIS appendices thoroughly disclose the impact of domestic livestock grazing on Sensitive plant species.

Decision on Affected Environment and Environmental Consequences

The analysis of affected environment and environmental effects to Sensitive species, including pygmy shrew, Columbian sharp-tailed grouse, three-toed woodpecker, Colorado River cutthroat trout, and various plant species, disclosed in the FEIS for the Medicine Bow NF LRMP is sufficient to inform the Regional Forester's decision and meets the statutory requirements of NEPA implementing regulations. I find no violation of law or regulation.

Methodology and Scientific Accuracy

Appellants have made several contentions regarding the application and documentation of sound scientific reasoning in the development of management direction and the analysis of environmental effects associated with that management direction. These contentions are described and discussed in more detail following some background regarding agency direction pertaining to forest plan standards and guidelines.

The NEPA implementing regulations (40 CFR 1500) address the use of science primarily in the context of estimating the effects (environmental consequences) of proposed actions and alternatives (see for instance Sections 1501.2(a) and (b), and 1502.6), on the use of science in decisionmaking which may affect the environment, and particularly 1502.16, which "forms the scientific and analytic basis for the comparisons" of alternatives. Section 1502.24 requires agencies to "insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements."

The regulations encourage accuracy and brevity in presenting scientific analysis and data in the environmental impact statement, focusing on "the issues that are truly significant" (Section 1500.1(b)). EIS disclosures are to be "based upon the analysis and supporting data" (Section 1502.8), which are made partly through referencing appendix material or documents contained in the planning record.

Effects of Trails and Trail Use

Contentions

Appellants contend the decision relies upon assertions regarding the impacts of trails on several environmental factors, including water quality, stream flow, riparian habitat, the spread of disease such as Whirling Disease, soil compaction, and removal of ground cover that are complex and

technical in nature. Appellants further allege that the FEIS lacks supporting analysis and data to support the referenced assertions, in violation of 40 CFR 1502.24 (NOA #0028, p. 2).

Discussion

In making this contention the appellants reference several pages from the FEIS. The relevant passages from each page will be discussed separately.

Many roads and trails are adjacent to streams and segments are located in floodplains. The impacts to water resources include sedimentation and alterations in streamflow (magnitude, timing, and duration).

(FEIS, p. 3-29, Aquatic Resources, Affected Environment, Human Influences on Aquatic Ecosystems, Roads)

Roads, trails, and associated human travel can also reduce, disturb, and interrupt riparian habitat on the Forest.

(FEIS, p. 3-42, Aquatic Resources, Environmental Consequences, Direct and Indirect Effects, Effects from Travel Management)

These descriptions are presented in the FEIS as generalized characterizations of the existing and potential effects of travel ways on aquatic resources. They are not particularly technical in nature. Support for the effects of sedimentation on fish populations is provided by a reference to a 1994 publication by Bozak and Young (FEIS, p. 3-29) and for the effects of recreational activities (including trails) on aquatic, riparian, and wetland environments by reference to several publications, including Helgath (1975) and Cole (2000) (FEIS, p. 3-48).

[T]rail use can contribute to the propagation and distribution of pathogenic agents such as the whirling disease protozoan

(FEIS, p. 3-51, Aquatic Resources, Environmental Consequences, Direct and Indirect Effects, Effects from Recreation Management)

The Appeal Record includes a document titled *Prevention Method for Anglers: Whirling Disease* (AR Vol. 12, pp. 4654-4655). This document describes the life cycle of the whirling disease parasite (*Myxobolus cerebralis*), how it affects trout and other salmonid species, how it is spread, and suggestions for reducing the chances of spreading. The document does not specifically mention trail use as a method of spreading for whirling disease, but does suggest that spores of the disease can be transported in mud inadvertently moved from an infected stream. The Appeal Record also contains notes of a voicemail communication from the Executive Director of the Whirling Disease Foundation, in which he states that there are no published scientific studies on the transmission of whirling disease (AR Vol. 11, p. 4192).

The association between spread of whirling disease and trail use is not readily apparent from the description of environmental consequences in the FEIS. In fact, documentation in the Appeal Record not only does not shed additional light on any such association, but potentially reinforces any questions about whether trail use is a factor in the spread of the disease.

Off-road motorized recreation has the potential for heavy impacts to the soil resource. ...

Soils are compacted and, in some instances, the topsoil layer is lost.

(FEIS, p. 3-86, Soil Resources, Environmental Consequences, Direct and Indirect Effects, Effects from Recreation Management)

This statement referenced by appellants is also a generalized description of potential effects associated with off-road motorized use. It is not technical in nature and should be readily understood by readers of the FEIS as a general characterization. The same section of the FEIS puts this description of potential effects into context by noting “[t]here is concern that off-road recreation, especially off-highway vehicle (OHV) and snowmobile use, damage soil and water resources. Because the areas affected are so small and scattered, the effects on soil and water area [sic] negligible at the forest-wide scale” (FEIS, p. 3-86). Therefore, these potential effects had no bearing on the comparison of alternatives considered in the FEIS.

In respect to all of the contentions regarding the effects of trails and trail use on various environmental factors, it should be noted that the Regional Forester’s Record of Decision made no site-specific decisions related to travel management (see the Discussion under the “Site Specific Decisions and Analysis” section). As the FEIS explains, “During implementation of the forest plan, site-specific project analyses will identify and address localized adverse effects from snowmobiles and other ORV [off-road vehicle] uses (FEIS, p. 3-86).

Decision

The FEIS description of existing and potential effects of trails and trail use on resources is presented in a generalized manner that is compatible with its use in the broad-scale analysis in the FEIS. These descriptions are not technical or particularly scientific in nature, but they are adequately supported through referencing relevant publications, with one exception. I am instructing the Regional Forester to supplement the description of whirling disease spread between streams to better explain the basis for the assertion that trail use can contribute to the disease’s propagation and distribution. I find no violation of law or regulation.

User Group Perceptions and Preferences

Contentions

Appellants contend the FEIS assertion that backcountry skiers have preferences for quiet, solitude, powder, and challenge rather than seeking out a particular trail system, is not backed by actual data or other supporting information. “[T]here are no citations, references by footnote or any attempted documentation of the Agency’s conclusions” (NOA #0028, p. 2).

Discussion

In its description of the affected environment associated with winter trails and trailheads, the FEIS notes the growing participation levels of cross-country skiing and provides the description of user preferences noted in the contention (FEIS, p. 3-321). Although this particular section (Winter Trails and Trailheads) of the FEIS is replete with well-referenced statistics on winter trail use, the paragraph that is the subject of this contention provides only a generalized description of cross-country skiing participation and user preferences.

Direct support for conclusions regarding backcountry skier preferences is found in the Appeal Record, which includes a summary of public comments on the Notice of Intent and contains several comments indicating a desire for opportunities providing a greater degree of solitude for skiers (AR Vol. 7, pp. 1650-1652). Elsewhere in the description of affected environment for winter trails and trailheads is found mention of partnership arrangements between the Forest Service and the Medicine Bow Nordic Association (FEIS, p. 3-320). It would not be unreasonable

to assume that the general preference characterizations questioned by the appellants are also based partly on information imparted by these partners.

The appellants do not offer any specific refutation of the generalized description of user preferences, other than asserting that the lack of citations or references leaves one to “assume that all backcountry skiers desire this situation, which we are certain is not always the case” (NOA #0028, p. 2). Few, if any, groups of national forest users are so homogenous that one description of preferences could apply to every individual. Neither the FEIS nor the LRMP provide any evidence that analysis of “issues that are truly significant” was based on a presumption that the description of backcountry skier preferences is true for all skiers, nor do the appellants suggest any. Even if that description were stricken from the FEIS or qualified to make it clear that it is not known to be universally true, the remaining analysis would not change and there would be no reason to change the decision regarding management direction.

Decision

The FEIS description of backcountry skier preferences is presented in a generalized manner that is compatible with its inclusion in the analysis of environmental consequences. I find no violation of law or regulation.

Stubble Height for Forage Vegetation

Contentions

Appellants contend the Agency has failed to comply with the requirements of 40 CFR 1502.24 to use sound scientific reasoning with the imposition of uniform minimum stubble heights for forage vegetation applicable to all riparian vegetation types. “There is no specific reference to any ... references or any analysis addressing uniform minimum stubble heights versus varied minimum stubble heights” (NOA #0027, p.16).

Discussion

The Medicine Bow NF LRMP Forestwide Guideline 2 for Livestock Use addresses development and application of herbaceous vegetation utilization, vegetation residue, stream bank disturbance, and woody species utilization criteria and mitigation measures (LRMP, pp. 1-33 to 1-34). The guideline specifies that site-specific mitigations are to be developed during rangeland (allotment management) planning when they are supported by research or experience. The guideline also provides certain mitigations that are to be used in the absence of updated or new allotment management plans, including riparian vegetation residue allowances (minimum stubble height) by type of pasture and existing rangeland condition (LRMP, p. 1-34, Table 1-8). The guideline references the Water Conservation Practices Handbook as the source for these minimum stubble heights. The appellants are correct that the heights provided in the guideline do not vary by species of vegetation.

It is worthwhile to note here that, by definition, guidelines in the Medicine Bow LRMP are advisable courses of action that should be followed to achieve Plan goals (LRMP, p. 1-25). Deviation from a guideline during implementation of the plan does not require a forest plan amendment, but should be analyzed as part of the project-level analysis and documented in a project decision document (ibid.).

In responding to a comment on the DEIS regarding measurements for allowable forage utilization, the Medicine Bow NF notes that the stubble height forage utilization guidelines have been in place since 1985 and are based on dozens of comprehensive scientific references (FEIS Appendix L, p. L-94). Although a list of references were not included in the response, the Appeal Record includes nearly 50 references in a document titled *Annotated Bibliography on Stubble Height Recommendations for Rangeland Vegetation and Riparian Areas* (AR Vol. 13, pp. 5492-5500, and nearly as many references in a second document titled *An Annotated Bibliography on the Utilization of Grasses with Emphasis on Riparian Areas* (AR Vol. 13, pp. 5501-5507).

The same comment response explains that rangeland vegetation managers will often take riparian area vegetation measurements on sedge species, although they may be taken on key individual species or on the species making up a plant community type.

Decision

The Medicine Bow NF used sound scientific reasoning that conforms to the requirements of 40 CFR 1502.24 in the development of guidelines for minimum riparian vegetation stubble heights. The guidelines appropriately provide for subsequent adjustment of minimum stubble heights based on site-specific analysis. When site-specific analysis and decisions have not yet been made, the LRMP provides standardized minimums developed with the consideration of numerous scientific publications and years of successful application. The scientific sources considered are documented in the project record. I find no violation of law or regulation.

Water Yield

Contentions

Appellants contend the Forest Service has failed to use sound scientific reasoning in the treatment of water yield in the Medicine Bow NF LRMP and FEIS and thereby violates the regulations requiring scientific integrity and identification of methodologies. Specifically, appellants contend there was a “failure to provide information that can be critiqued” because an unpublished procedure was used for water yield analysis and not otherwise provided to the public. Appellant further contends the Forest Service did not disclose the scientific report or cumulative impacts outlined in the report prepared by Troendle and Nankervis (NOA #0027, pp. 17-18).

Discussion

To estimate potential water yield increases resulting from vegetation management activities, the Medicine Bow NF relied on a computer model commonly referred to as WRENSS, based on the EPA publication *An Approach to Water Resources Evaluation of Non-point Silvicultural Sources* (FEIS Appendix B, p. B-102; AR Vol. 13, p. 5052). The water yield analysis did not use WRENSS to develop absolute estimates, but only to generate estimates for comparing potential differences between the alternatives (FEIS Appendix B, p. B-102; AR Vol. 13, p. 5052).

WRENSS was designed as a site specific procedure, and some assumptions were required to generalize it for use in (non-site specific) Forest Plan water yield modeling. Suggestions on modeling methods and assumptions were provided by Chuck Troendle, of the Rocky Mountain Forest and Range Experiment Station (RMS), and Jim Maxwell, R-2 Regional Hydrologist (AR Vol. 13, p. 5052).

Protocols used in the water yield analysis on the Medicine Bow NF are the same as those that were used on the water yield analysis for the Arapaho-Roosevelt and Routt National Forests (FEIS Appendix B, p. B-102).

The scientific information used in conducting the water yield analysis is listed in the record (FEIS, pp. 3-673 to 3-810; FEIS Appendix B, pp. B-101, 102, 108, and 112; AR Vol. 12, pp. 4906 to 4987; AR Vol. 13, pp. 4998 to 5051, and 5313 to 5386). These references include some of the same authors that appellants claim were not disclosed in the FEIS and used by the Medicine Bow NF (AR Vol. 13, pp. 4998 to 5055, 5313 to 5386, 5271, 5272, and 5280 to 5282). Appendix B of the FEIS includes discussion of the scientific, technical, and operational limitations encountered in modeling water yield from forested landscapes (FEIS Appendix B, pp. B-108 to B-112). This includes disclosure of the factors that influence differences between the estimates of potential water yield found by Troendle and Nankervis, and those used by the Medicine Bow NF in estimating potential water yield (AR Vol. 13, p. 5312).

The FEIS clearly discloses the effects, including cumulative effects, of the various alternatives on water yield using the appropriate scientific information (FEIS, pp. 3-39 to 3-64).

Decision

The Appeal Record discloses the sources that the Medicine Bow NF relied upon to assess and disclose the effects to water yield on the national forest. I find no violation of law or regulation.

Opposing Views

Contentions

Appellants contend the Medicine Bow NF LRMP provides direction for a protective buffer around Columbian sharp-tailed grouse leks that is inconsistent with the findings of certain scientific studies and the recommendations of scientists. “[T]he FEIS and BE entirely fail to address any scientific controversy associated with sharp-tailed grouse lek buffers. ... [T]his is a patent violation of the CEQ NEPA regulations at 40 CFR 1502.9(b)” (NOA #0035, p. 26).

Discussion

The implementing regulations for the NEPA at 40 CFR 1502.9 require environmental impact statements to be prepared in two stages and supplemented as necessary. The FEIS is to contain, as part of agency response to comments on the DEIS, discussion at appropriate points of any responsible opposing view that was not adequately discussed in the DEIS (40 CFR 1502.9(b)).

Sharp-tailed grouse leks are discussed in the FEIS at Appendix I (Biological Evaluation, p. I-151), which states that grouse lek buffers were set to conform with Wyoming Game and Fish Department (WGFD) guidelines. Those guidelines were developed through a peer reviewed process. Concerns regarding the adequacy of sharp-tailed grouse lek buffers that were submitted by the public during the review of the DEIS are responded to in FEIS Appendix L (pp. L-131, L-205 to L-206). This response also notes that the buffers are based on recommendations of WGFD biologists based on past experience.

The Medicine Bow NF is not required by regulation to question or second guess every bit of information it applies to the planning process. The Forest has reasonably assumed that, through the peer reviewed process used by the State to develop lek buffer distances, opposing points of view were raised and discussed, resulting in the best guidance possible for land managers, including the Forest Service.

Decision

The Medicine Bow NF acted consistent with the appropriate regulations in establishing sharp-tailed grouse lek buffers and responding to related comments on the DEIS. I find no violation of law or regulation.

Commenting

Changes Between Draft and Final EIS

Contention

Appellants are concerned that the public had no chance to comment on changes between the Draft and Final EIS and specifically cited the addition of Pelton Creek and Brooklyn Lake areas to MA 1.31 (Year-round Non-motorized use) (NOA #0032, p. 3; #0033, p. 3).

Discussion

The NEPA implementing regulations at 40 CFR 1503.4 direct the agency's response to comments made on a DEIS:

(a) An agency preparing a final environmental impact statement shall assess and consider comments both individually and collectively, and shall respond by one or more of the means listed below, stating its response in the final statement. Possible responses are to:

- (1) Modify alternatives including the proposed action.
- (2) Develop and evaluate alternatives not previously given serious consideration by the agency.
- (3) Supplement, improve, or modify its analysis.
- (4) Make factual corrections.
- (5) Explain why the comments do not warrant further agency response, citing the sources, authorities, or reasons which support the agency's position and, if appropriate, indicate those circumstances which would trigger agency reappraisal or further response.

Changes between a DEIS and FEIS are expected because comments are sought from the public, federal, state and other local agencies, Indian tribes, and other affected parties, and because the NEPA implementing regulations provide for a range of potential responses, including several which would entail making changes to the EIS. The CEQ regulations at 40 CFR 1502.9 provide direction on whether the agency must supplement its draft EIS:

(c) Agencies:

- (1) Shall prepare supplements to either draft or final environmental impact statements if:

- (i) The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or
 - (ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.
- (2) May also prepare supplements when the agency determines that the purposes of the Act will be furthered by doing so.

Changes made between the DEIS and FEIS are summarized in the ROD on pages 22-27. The changes included enhancements of the environmental analysis and the addition of an alternative (D FEIS) that is a modification of the preferred alternative in the DEIS. The modifications were the result of public comment and additional analysis, and included changes in land allocations to Special Interest Areas, Research Natural Areas, and Recommended Wilderness (LRMP, pp. 2-12 through 2-15). The allocations made for Alternative D FEIS fall within the range of allocations by resource emphasis categories (Renewable Resource Use, Biological Conservation, Recreation Use, Special Designations) reflected in the six alternatives analyzed in detail in the DEIS.

The appellants are apparently contesting the land allocations made in two specific areas of the Medicine Bow NF as part of the added alternative, D FEIS. The area of Pelton Creek was allocated to MA 5.13 and 5.15 (Forest Products and Forest Products/Ecological Maintenance and Restoration) in the DEIS's preferred alternative, D DEIS. In alternative D FEIS, the selected alternative, Pelton Creek was allocated to MA 1.31 (Backcountry Recreation, Year-round Nonmotorized). This same allocation is not found in the other alternatives. However, the Pelton Creek area was allocated to MA 1.2 (Recommended Wilderness) in alternative F (in both the DEIS and FEIS), which carries with it a set of desired conditions similar to MA 1.31, particularly as it applies to motorized access to the area.

The appellants also claim that the allocation of the Pelton Creek area to MA 1.31 "would also be considered a buffer zone to a wilderness area, which is not allowed in the 1964 Wilderness Act" (NOA #0032, p. 3 and #0033, p. 3). Furthermore, the allocation is adjacent to the Platte River Wilderness, but only on a relatively small portion of the boundary and could therefore hardly be considered a buffer zone. The Wilderness Act contains no prohibition on buffer zones to Wildernesses.

The other allocation change contested by the appellants is the "extension of the Brooklyn Lake 1.31 area" (NOA #0032, p. 3 and #0033, p. 3). This part of the contention is less clear as most of the Brooklyn Lake area is actually allocated to MA 1.33 (Backcountry Recreation, Summer Nonmotorized with Winter Snowmobiling), rather than MA 1.31. In fact, a portion of this area was allocated to MA 1.31 in alternative D DEIS, but was allocated to MA 1.33 in alternative D FEIS. The area is allocated similarly in alternative C (FEIS Management Area Maps).

Decision

The addition of an alternative to the FEIS was consistent with the NEPA implementing regulations at 40 CFR 1503.4. That alternative is a modification of one of the alternatives analyzed in detail within the DEIS and the allocations reflected in the alternatives in the DEIS. The allocations of Management Area Prescriptions in the Pelton Creek area in alternative D FEIS is similar to Alternative F in the DEIS, which was made available for public comment. There is no indication

in the FEIS or provided by the appellant that this allocation represents a substantial change relevant to environmental concerns. I find no violation of law or regulation.

Medicine Bow National Forest Plan Coalition Alternative

Appellants make several contentions regarding the lack of appropriate consideration and treatment of the input provided by the Medicine Bow National Forest Plan Coalition (Coalition). These contentions concern compliance with the regulatory requirements at 40 CFR 1501.6 for involvement of cooperating agencies in the NEPA process, and with requirements at 40 CFR 1506.2 for eliminating duplication between NEPA and comparable State and local requirements. Separate discussions are provided for the two regulatory requirements, with a single decision at the end of this section.

Cooperating Agencies

Contentions

Appellants contend the Coalition, as a cooperating agency, developed and submitted a comprehensive alternative, but that “[t]he Coalition Alternative was not included in the FEIS, nor was it even treated as a complete alternative. The failure to include the entire Coalition Alternative in the FEIS is a violation of law, a violation of the intent of ‘cooperating agency’ status, and a violation of the spirit of the MOU” (NOA #0027, p. 11). The appellants add that “[t]he FEIS prepared by the FS does not contain any section that includes and discusses the Coalition Alternative as a complete document, instead the Coalition Alternative is quickly dismissed as one of the ‘Alternatives Considered, but Eliminated from Detailed Study’” (NOA #0027, p. 10). It is the appellants’ contention that this treatment of the Coalition Alternative “falls far short of being used to the ‘maximum extent possible’ 40 C.F.R. § 1501.6(a)(2)” (NOA #0027, p. 12).

Discussion

This discussion will examine two aspects of the appellants’ contentions—the Coalition as a cooperating agency, and the appropriate use of input from a cooperating agency.

The Coalition as a Cooperating Agency

A cooperating agency is defined in the implementing regulations of the National Environmental Policy Act (NEPA) at 40 CFR 1508.5 as “any Federal agency other than a lead agency which has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal (or a reasonable alternative) for legislation or other major Federal action significantly affecting the quality of the human environment. . . . A State or local agency of similar qualifications . . . may by agreement with the lead agency become a cooperating agency.” Lead agencies are required at 40 CFR 1501.6(a)(2) to “[u]se the environmental analysis and proposals of cooperating agencies with jurisdiction by law or special expertise, to the maximum extent possible consistent with its responsibility as lead agency.”

A request to be collectively designated a cooperating agency was made by seven Wyoming Conservation Districts (Converse County, Laramie County, Laramie Rivers, Little Snake River, Medicine Bow, Platte County, and Saratoga-Encampment-Rawlins) to the Forest Supervisor on December 20, 1999 (AR Vol. 6, pp. 823-826). This request was denied by the then Forest Supervisor, who wrote that the Conservation Districts lacked jurisdiction for the forest planning

decisions being made and that they had no special expertise needed to complete the revised Plan (AR Vol. 6, p. 840). However, a Memorandum of Understanding was apparently established (no signature page was included in the Appeal Record) with the seven Conservation Districts in June 2000 in which the Forest Service agreed to review the Districts' plan, data, and other information and provide data, maps, guides, and copies of all public comments to the Districts; the Districts agreed to provide a liaison to assist with the interpretation of conservation district plans, and to review Forest Service resource assessment information and provide written responses to help resolve management concerns (AR Vol. 6, pp. 826-828).

On March 1, 2002, the seven Conservation Districts submitted a second request for cooperating agency status (AR Vol. 6, pp. 833-834). A new Forest Supervisor was in place at this time and agreed to recognize the Conservation Districts collectively as a cooperating agency in a letter dated June 11, 2002 (AR Vol. 6, pp. 848-849). The Forest Supervisor also permitted the Conservation Districts to name one representative and one alternate to serve on the Medicine Bow National Forest Steering Committee.

A Memorandum of Understanding (MOU) that established the seven Conservation Districts collectively as a cooperating agency was signed by the parties in September 2002 (AR Vol. 6, pp. 841-844). Another MOU dated August 2002 between the Forest Service and the State of Wyoming established the state as a cooperating agency and included the Boards of Commissioners for Carbon and Converse Counties among the specific state agencies that had resources and information that could be utilized in the cooperative relationship between the state and the Forest Service (AR Vol. 6, pp. 856-860). The seven Conservation Districts and two county Boards of Commissioners are the only local government entities that were granted cooperating agency status by the Forest Service for the revision of the Medicine Bow Forest Plan.

The Medicine Bow National Forest Plan Coalition formed following the December 2002 release by the Forest Service of the DEIS and Proposed Revised Forest Plan for the Medicine Bow National Forest (AR, Vol. 7, p. 1363). The Coalition asserted in the transmittal letter for its comments on the DEIS, as it has in its Notice of Appeal, that it has been granted "cooperating agency" status by the Forest Service pursuant to 40 CFR 1501.6 and 1508.5 (AR Vol. 10, pp. 3057-3478).

The core of the Coalition's membership has been the Conservation Districts granted cooperating agency status. However, the Coalition as represented in both the comments submitted to the DEIS in April 2002 and in the Notice of Appeal submitted in April 2004 includes members that were not granted cooperating agency status by the Forest Supervisor. For the comments on the DEIS, those Coalition members not granted cooperating agency status included Albany, Laramie, and Platte Counties (AR Vol. 10, p. 3057). For the Notice of Appeal, those members of the Coalition not granted cooperating agency status included Laramie County, Little Snake Water Conservancy District, Salisbury Livestock, and Intermountain Forest Association. Also, Conservation Districts that were included as part of the collective cooperating agency status accorded by the September 2002 MOU, but not listed among the Coalition membership for the appeal, were Platte County, Laramie Rivers, and Saratoga-Encampment-Rawlins (NOA, p. 1).

The varied membership, which included local government and non-government entities not included in the two cooperating agency agreements, makes it clear that the Coalition itself was

never accorded cooperating agency status. With the Coalition having no agreed-to status as a cooperating agency, the provisions accorded to a cooperating agency's involvement in the preparation of an environmental impact statement do not apply to the Coalition per se. They do apply to those members of the Coalition who were included in the August 2002 and September 2002 MOUs. Even so, the Appeal Record contains numerous examples of input provided by the Coalition and its constituent members, and demonstrates how the Forest Service considered and used that input.

Utilization of Input from Cooperating Agencies

The Appeal Record provides clear indication local and State government entities were provided many opportunities to participate in the planning process before and after cooperating agencies were designated. For example, the Appeal Record indicates an effort was made to coordinate with the Organization of Southeastern Wyoming Conservation Districts (which includes the seven Conservation Districts that are part of the membership of the Coalition – Converse County, Laramie County, Laramie Rivers, Little Snake River, Medicine Bow, Platte County, and Saratoga-Encampment-Rawlins Conservation Districts) relatively early and often in the process of revising the forest plan. A Memorandum of Understanding (MOU) was established between the Medicine Bow-Routt National Forests and the Conservation Districts in June 2000 (AR Vol. 6, pp. 826-829). The Forest Service agreed to review the Districts' data and information; share resource data, maps, references, guides, and other information with the Districts; and provide copies of all public comments to the Districts. The Districts agreed to provide a liaison to assist the planning team, and to review Forest Service resource assessment information and provide written responses to help resolve management concerns (AR Vol. 6, p. 828).

Beginning in Fall 2001, the Medicine Bow National Forest opened its internal process steering meetings to the public with specific invitations and notifications to the Conservation Districts' liaison. These meetings were held monthly until after the DEIS was released (AR Vol. 6, p. 840). Most of these steering team meetings covered topics in which the Conservation Districts had expressed interest (AR Vol. 7, pp. 1146-1149, 1150-1152, 1156-1159, 1160-1166, 1177-1181, 1186-1188, 1189-1196, 1197-1213, and 1214-1281).

In August 2002 an MOU was signed between the Medicine Bow-Routt National Forests and the State of Wyoming to provide for coordination and cooperation on the revision of the Medicine Bow Forest Plan and to recognize the State of Wyoming as a cooperating agency. Included among the specific state agencies named in the MOU as having resources and information that may be utilized in the revision of the Forest Plan were the Boards of Commissioners for Carbon and Converse Counties (AR Vol. 6, pp. 856-860).

Another MOU was signed in September 2002 between the Medicine Bow-Routt National Forests and the Seven Conservation Districts that Border the Medicine Bow National Forest. The purpose of this MOU was to "provide coordination, communication, and the exchange of ideas and information between the Forest Service and the Districts" in the effort to revise the Medicine Bow Forest Plan. The MOU established the seven Conservation Districts collectively as a cooperating agency in recognition of their expertise in several specified areas, and it stated that they were not precluded from submitting other information, comments, and data, including preparation of an alternative. The MOU established several requirements for the Forest Service, including the utilization of data, resources, and information provided by the Conservation Districts, but nowhere

does it explicitly require the agency to consider in detail, and publish verbatim, any alternative submitted by the Districts (AR Vol. 6, pp. 841-844).

Representatives for the Conservation Districts and Counties participated in a Steering Committee meeting on September 9, 2002, to review and critique the alternatives being analyzed and another on November 13, 2002, to discuss the preferred alternative (AR Vol. 7, pp. 1197-1203 and 1204-1213). The Districts and Counties also participated through their representatives at a series of five Steering Committee meetings in February and March 2003 to discuss a variety of issue and analysis topics (AR Vol. 7, pp. 1228-1230, 1269-1273, 1305-1309, 1318-1320, and 1322-1325).

The Conservation Districts were each specifically requested to review draft standards and guidelines and submit comments during the development of the DEIS. The Forest Service reviewed those comments and provided responses, including descriptions of how the proposed changes were used and, if not, why (AR Vol. 11, pp. 4152-4182). Later, as the FEIS and revised LRMP neared completion, Steering Committee members were afforded an opportunity to review and comment on drafts of the documents. The Conservation Districts and Carbon County did not respond with feedback, but Converse County did (AR Vol. 7, pp. 1518-1519).

The Coalition submitted comments, including a proposed alternative, to the Forest Supervisor under a transmittal memo dated April 12, 2003. During the comment period for the DEIS the Coalition provided approximately 116 pages of comment and 305 pages of a proposed alternative for the Forest Service to consider. A press release issued by the Coalition in April 2003 lists several issue areas that are addressed by the Coalition Alternative, including economics, Wilderness and roadless areas, livestock grazing, biodiversity, communities, multiple-use, water yield, fuels reduction, and ecosystem restoration (AR, Vol. 7, pp. 1364-1366). The Appeal Record also contains an undated document prepared by the Forest Service that provides an assessment of each of the issue areas listed in the Coalition's press release (AR Vol. 7, pp. 1403-1405). These assessments mostly describe how the DEIS and Proposed Revised Forest Plan were responsive to each of the issue areas. Also included in the Appeal Record are presentation materials developed by the Coalition and Forest Service notes from an April 21, 2003, meeting between Coalition representatives, the Regional Forester for the Rocky Mountain Region, and the Medicine Bow Forest Supervisor and several of her staff (AR Vol. 7, pp. 1359-1396). These documents reflect a detailed presentation by the Coalition of their alternative.

It is clear from the Appeal Record that the Coalition Alternative was reviewed and considered by the Forest Service in its entirety. The FEIS at page 2-21 and the ROD at page 31 each describe the consideration of the Coalition Alternative and explain why it was not included among those alternatives considered in detail. Both documents explain that although the alternative contained a unique theme, management proposals for specific areas, and recommendations for Forestwide guidance, it was not significantly different from components of other alternatives already under consideration. Consequently, it was not added to the range of alternatives considered in detail, but was evaluated along with other comments on the DEIS received from the public (FEIS, pp. 2-21 to 2-22). No specific detailing of how the Coalition Alternative is reflected in components of other alternatives is found in the Appeal Record.

The Forest Service performed a content analysis of the Coalition's submission and captured 43 pages of comments (AR Vol. 11, p. 4137a). These comments were evaluated along with other

comments received and, because of the large number of comments received, were appropriately grouped. The grouped comments were either used to make changes in the FEIS and revised LRMP, or responses were provided to explain why no change was necessary. Appendix L of the FEIS includes the Forest Service's response to comments received on the DEIS, including those of the Coalition. The responses in Appendix L describe changes that were made to the following aspects of the FEIS and revised LRMP as a result of the Coalition's comments:

- Water yield—FEIS Appendix L, p. L-5
- Community water supply protection — FEIS Appendix L, p. L-6
- Old growth—FEIS Appendix L, p. L-15
- Timber supply and demand—FEIS Appendix L, pp. L-36 to L-37
- Timber resource modeling—FEIS Appendix L, p. L-159
- Effects on timber harvest and recreational use—FEIS Appendix L, p. L-30
- Wilderness recommendations—FEIS Appendix L, pp. L-40 and L-178
- Analysis of public land grazing—FEIS Appendix L, p. L-39

Other indications found in the Appeal Record of the consideration given to the Coalition Alternative include a set of spreadsheets displaying acres allocated for each Management Area for the Coalition Alternative and other alternatives considered (AR Vol. 16, pp. 6855-6864).

Elimination of Duplication with State and Local Procedures

Contentions

The appellant contends “[t]he FS is required to publish the Coalition Alternative verbatim in the FEIS in order to allow for a complete comparison and reconciliation. See 40 C.F.R. § 1506.2(d)” (NOA #0027, p. 11).

The appellant also contends “[t]he Coalition Alternative was submitted consistent with local land use plans” and “[t]here are substantial differences between the FS's preferred alternative and the Coalition Alternative” (NOA #0027, p. 12). “The law requires that the FEIS ‘shall discuss any inconsistency of a proposed action with any approved State or local plan.’ 40 C.F.R. § 1506.2(d). If there is an inconsistency with a local plan then the FEIS must ‘describe the extent to which the agency would reconcile its proposed action with the plan’ Id.” (NOA #0027, p. 12). “The FEIS prepared by the FS does not contain any section discussing the inconsistencies between the Coalition's Alternative and the Plan, nor does the FEIS make any attempt to describe the extent to which the FS would reconcile any such inconsistencies” (NOA #0027, p. 12).

Discussion

The appellants cite 40 CFR 1506.2(d) of the implementing regulations for the NEPA. Section 1506.2 of the regulations is titled *Elimination of duplication with State and local procedures*, and is applicable whether or not the State or local agencies have been recognized as cooperating agencies pursuant to 40 CFR 1501.6. The regulation cited by the appellant, 40 CFR 1506.2(d), requires that EIS's discuss any inconsistency of a proposed action with any approved State or local plan and laws, and, where inconsistencies exist, “describe the extent to which the agency would reconcile its proposed action with the plan or law.” As the title of this section of the regulations indicates, the purpose of these requirements is to eliminate duplication of state and local land use planning procedures. Section 1506.2(c) requires that “[a]gencies shall cooperate with State and

local agencies to the fullest extent possible to reduce duplication between NEPA and comparable State and local requirements.” However, there is no specific requirement to publish the input from State and local agencies, or from cooperating agencies, verbatim in an EIS. It was neither necessary nor practical to publish the 300-plus page Coalition Alternative verbatim in the FEIS for it to receive appropriate consideration by the Regional Forester.

The alternative submitted by the Coalition was developed by a consultant utilizing input from the local governments and citizens. Letters of endorsement or support from local governments involved in the effort were included with the submittal (Medicine Bow Coalition Alternative Draft, Appendix B). Although significant effort obviously went into developing the submittal, there is no evidence in the Appeal Record that the comments and alternative submitted by the Coalition represent anything other than input to the Forest Service planning process. The proposed direction in the Coalition Alternative pertains only to the management of National Forest System land and therefore cannot be equated to a State or local plan or law as covered by 40 CFR 1506.2.

The FEIS briefly describes local land use planning in the three counties with more than an incidental amount of National Forest System lands – Converse, Carbon, and Albany County. It does not identify any specific inconsistencies, but does briefly describe how the revised LRMP is responsive or compatible with local land use planning emphases (FEIS, pp. 3-641 to 3-642).

Decision for Medicine Bow National Forest Plan Coalition Alternative

The Appeal Record provides ample evidence of the Conservation Districts’ and Counties’ involvement in the planning process. I find that the FEIS and supporting documentation in the Appeal Record demonstrate compliance with the requirements for use of input provided by a cooperating agency. The Regional Forester explains in the ROD that the Coalition Alternative is not significantly different from components of other alternatives considered in detail, but provides no specifics. Therefore, I am instructing the Regional Forester, or his representative, to meet with representatives of the Medicine Bow National Forest Plan Coalition for the purpose of providing more specific description of how the Coalition Alternative is reflected in components of other alternatives and how the Coalition’s input was otherwise utilized in preparing the FEIS and LRMP.

I also find that the Forest Service had no obligation under 40 CFR 1506.2(d) with respect to the Coalition Alternative. There is no requirement to consider it in detail or publish it as part of the FEIS. Although there are certainly differences between the Coalition Alternative and Alternative D-FEIS selected by the Regional Forester, I find that there is no information in the appellant’s Notice of Appeal or the Appeal Record to indicate that the Medicine Bow NF LRMP is inconsistent with any approved State or local plan and laws.

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

Endangered Species Act

Appellants make several contentions regarding the consultation, conservation, and critical habitat protection requirements of Section 7 of the Endangered Species Act (NOA #0035, p. 48-49 and 50). The specific contentions are described below and a single decision is provided at the end of the section.

Consultation

Contention

Appellants contend the Forest Service failed “to consult with the U.S. Fish and Wildlife Service ... to ensure the Plan revisions conserve each threatened and endangered species” (NOA #0035, p. 49). More specifically, the appellants also contend “[t]he MBNF did not consult with the FWS regarding the impacts of these activities [livestock grazing and motorized recreation] to the Preble’s meadow jumping mouse and its critical habitat” (NOA #0035, p. 49).

Discussion

Section 7(a)(2) of the Endangered Species Act requires that “[e]ach Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency ... is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined ... to be critical.” The implementing regulations of the ESA provide direction to agencies on the consultation procedures that must be followed when dealing with listed or proposed species, and designated or proposed critical habitat (50 CFR 402).

The Medicine Bow NF completed a biological assessment (BA) on the potential effects to listed and proposed species and their designated or proposed critical habitat from management direction in the Medicine Bow NF LRMP (FEIS Appendix I, pp. I-1 to I-113). The Forest Service requested formal consultation with the U.S. Fish and Wildlife Service (FWS) on the potential effects to some of the listed species found on the Medicine Bow and their critical habitat from implementation of actions described in the LRMP⁴ (FEIS Appendix I, p. I-85). The FWS issued a Biological Opinion (BO) concluding that the revised Plan “is not likely to jeopardize the continued existence of the Canada lynx” or “the Preble’s [meadow jumping mouse] or adversely modify its critical habitat” (AR Vol. 20, pp. 9355 and 9373). The FWS also concurred with the effects determination in the BA of “not likely to adversely effect” for black-footed ferret, Wyoming toad, bald eagle, Ute ladies’ tresses and Colorado butterfly plant (AR Vol. 20, pp. 9329-9330).

The Medicine Bow NF identified recreation in the FEIS as a major revision topic, which includes winter and summer motorized recreation (ROD, p. 9; FEIS, p. 1-7; FEIS Appendix I, pp. I-6, I-19). The potential effects from recreation and grazing on the Preble’s meadow jumping mouse are specifically described in the BA (FEIS Appendix I, pp. I-41 and I-42). The FWS identified grazing pressure (particularly during a drought) and off-road vehicle use as threats to the primary constituent elements of critical habitat and the effects from these activities were analyzed in the

⁴ The formal consultation covered Canada lynx, Preble’s meadow jumping mouse and its Critical Habitat, the Platte River downstream listed species, and the endangered Colorado River fishes.

BO (AR Vol. 20, pp. 9368 to 9373). The record clearly demonstrates that the FWS considered both grazing and recreation activities in assessing the effects of the LRMP on the Preble's meadow jumping mouse and its Critical Habitat, and concluding that the LRMP would not jeopardize the species nor adversely modify its habitat.

Conservation

Contentions

Appellants broadly contend “the agency failed to provide for any conservation of threatened and endangered species on the MBNF” (NOA #0035, p 49). Pertaining more specifically to lynx conservation, the appellant contends that “[l]ynx habitat was not mapped on the MBNF using the best available science.... It is unclear whether under the LCAS, the MBNF will actually ensure adequate protection of lynx habitat and lynx on the MBNF” (NOA #0035, p. 50).

Discussion

The Medicine Bow NF LRMP does provide broad management direction for the conservation of listed species through the use of Goals (1 and 3) and Subgoals (1a, 1b, 1c and 3.b), along with specific Forestwide standards and guidelines (LRMP, pp. 1-2 to 1-6, 1-10 to 1-12, 1-28 to 1-39, 1-40 to 1-48).

The NFMA implementing regulations require the interdisciplinary team to “collect, assemble, and use data, maps, graphic material, and explanatory aids, of a kind, character, and quality, and to the detail appropriate for the management decisions to be made” (36 CFR 219.12(d)). NEPA implementing regulations require that “[a]gencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements” (40 CFR 1502.24). Utilization of the “best scientific data available” is an ESA requirement for listing species and designating critical habitat (Sec. 4(b)(1)(A) and (b)(2)). This provision is not applicable to the forest planning process.

The Biological Assessment (BA) for the Medicine Bow NF LRMP is presented in FEIS Appendix I. Lynx Analysis Units (LAUs) and areas considered as linkage, along with the amount of lynx habitat by LAU, are disclosed in the BA (FEIS Appendix I, pp. I-24, I-27, I-28, I-33). The status of lynx and distribution of lynx habitat on the Medicine Bow NF are also described in the BA (FEIS Appendix I, p. I-23).

The Medicine Bow NF relied on a number of sources to identify lynx habitat and delineate LAUs on the national forest, including a national memo providing direction for mapping of lynx habitat and designating LAUs; the Lynx Conservation Assessment and Strategy (LCAS) prepared by an interagency lynx biology team; input from the Regional Office; and working with the Wyoming Game and Fish Department and the FWS, to refine the national methodology (AR Vol. 21, pp. 10078 to 10080, 10081 to 10084; AR Vol. 22, pp. 10234, 10235).

The FWS Biological Opinion (BO) concluded that the Medicine Bow NF LRMP is not likely to jeopardize the continued existence of lynx (AR Vol. 20, p. 9329). The ROD notes that in the BO the FWS anticipated that impacts of the LRMP would be insignificant or discountable, and adds that if the FWS designates critical habitat on the Medicine Bow NF, the Forest will evaluate the need for amendment (p. 45-46).

Critical Habitat

Contention

The appellants contend that the Forest Service's assertions that the LRMP will not adversely modify critical habitat cannot be supported because the Biological Assessment does not define what constitutes adverse modification for any critical habitat (NOA #0035, p. 50).

Discussion

Section 7(a)(2) of the ESA directs the action agency to consult with the Secretary of the Interior [FWS] to insure its actions are "not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of habitat ... which is determined ... to be critical." Requirements for the consultation process are described under the ESA implementing regulations at 50 CFR 402 Subpart B. The action agency uses a biological assessment, as required at 50 CFR 402.12, to evaluate the potential effects of the proposed action on listed species and designated critical habitat, and determine "whether any such species or habitat are likely to be adversely affected by the action."

The Medicine Bow prepared a Biological Assessment (BA) to evaluate effects on listed and proposed species and their designated or proposed critical habitat that may be affected by the management direction in the Plan (FEIS Appendix I, pp. I-1 to I-113). The BA discloses an analysis that includes the potential effects of the LRMP on designated critical habitat for one species found on the Medicine Bow – Preble's meadow jumping mouse – and six species found off of, and downstream from, the Medicine Bow – whooping crane, interior piping plover, bonytail, Colorado pikeminnow, humpback chub, and razorback sucker. The analysis for each species and its critical habitat includes descriptions of its status and distribution, habitat requirements, threats and vulnerabilities, protective measures included in the LRMP, and the environmental consequences associated with the LRMP (FEIS Appendix I, pp. I-37 to I-43, I-66 to I-67, I-68 to I-69, and I-75 to I-84). The Forest Service determination of effects for each of these species is that the LRMP is "likely to adversely affect" designated critical habitat (FEIS Appendix I, p. I-87).

When a determination is made that an action may affect listed species or critical habitat, 50 CFR 402.14(a) requires formal consultation between the action agency and FWS. The responsibilities of FWS during formal consultation are described at 50 CFR 402.14(g). They include the formulation of a biological opinion "as to whether the action ... is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat" (50 CFR 402.14(g)(4)). Such determinations are also specified as part of the required content for biological opinions at 50 CFR 402.14(h)(3). Thus, the determination of whether the LRMP may result in adverse modification of critical habitat is a responsibility of the FWS, not the Forest Service. References in the planning documents to this determination, such as on page 46 of the ROD, are references to the FWS determination in their Biological Opinion for the Medicine Bow LRMP, and are not "assertions" by the Forest Service as contended by appellants.

Decision on ESA Contentions

The record clearly demonstrates the Medicine Bow has met its responsibilities under Section 7(a)(2) of the Endangered Species Act (ESA), resulting in a FWS determination that the LRMP is

not likely to jeopardize the continued existence of the Canada lynx or the Preble's meadow jumping mouse.

The LRMP contains management direction intended to provide for the conservation of federally listed species, including Canada lynx. Canada lynx habitat was mapped using a variety of appropriate sources.

The concern raised by appellants regarding critical habitat relates to biological opinion requirements that are not the responsibility of the Forest Service. The Medicine Bow, through its biological assessment, appropriately made the determinations of effect to critical habitat that are required of the Forest Service.

I find no violation of law or regulation.

Wild and Scenic Rivers Act

Eligibility

Contentions

One appellant contends the Encampment River does not qualify for wild and scenic river designation because it is not “free-flowing,” i.e. flowing in a natural condition, as defined by Section 16(b) of the Wild and Scenic Rivers Act (Act). “The Encampment River does not qualify for Wild and Scenic River designation because it is not ‘flowing in [a] natural condition.’ ...The flow ... is regulated by water released from the Hog Park Reservoir” and “is supplemented with large quantities of water through a trans-basin diversion” (NOA #0027, p. 21).

Discussion

Developed initially in 1970 and revised in 1982, the Departments of the Interior and Agriculture formulated guidelines (Interagency Guidelines⁵) to provide consistency in evaluating wild, scenic and recreational river areas. The Interagency Guidelines are specific that a river segment may be found eligible even if such river segment flows between large impoundments. The segment under evaluation must, however, meet the qualifying conditions -- free flow and possessing one or more outstandingly remarkable value (Interagency Guidelines, p. 39457).

The Interagency Guidelines provide no specific requirement for the flow (quantity) of an identified segment. “Flows are sufficient if they sustain or complement the outstandingly remarkable values for which the river would be designated” (Interagency Guidelines, p. 39457). Congress has added a number of rivers to the National Wild and Scenic Rivers System (National System) with an upper terminus of an irrigation, flood control or hydropower dam and with flows affected by the upstream structure.

The wild and scenic river study process conducted by staff of the Medicine Bow NF included a step to determine the free flow of all identified streams:

Step 3 -- “Determine if river segments are free flowing. This means the section must be riverine in appearance and be free of high-head dams and extensive riprap or diversions” (AR Vol. 20, p. 9208).

Staff completed an eligibility assessment form (AR Vol. 20, p. 9229) for an 11-mile segment of the Encampment River, finding it eligible for inclusion in the National System. In addition to finding the segment free flowing, it was also found to possess outstandingly remarkable scenic, recreation, wildlife, vegetative and fish values (FEIS Appendix E, pp. E-4 and E-9). This finding is consistent with the wild and scenic river study conducted in the 1985 LRMP (AR Vol. 20, p. 9132) in which the partially controlled river flows were deemed adequate to protect the scenery, recreation, fish or wildlife values in the study segment.

⁵ *National Wild and Scenic Rivers System; Final Revised Guidelines for Eligibility, Classification and Management of River Areas* in the Federal Register (Vol. 47, No. 173; September 7, 1982, pp. 39454-39461).

Decision

I find the wild and scenic river study process utilized for the Medicine Bow NF to be consistent with law and policy.

National Directives

Site-Specific Decisions and Analysis (FSM 1922)

Contentions

Various contentions are made in three appeals (NOA #0028, 0032, and 0033) that the Medicine Bow NF LRMP makes site specific decisions for closure of areas and changes in permissible uses without providing rationale for such decisions, without disclosing the adverse effects necessitating such actions, and without documenting the consideration of associated tradeoffs. The contentions focus on constraints to snowmobile use in several areas allocated to Management Area 1.31 (East Fork Encampment River, Cunningham Park, eastern Libby Flats, and the Illinois Creek area), MA 2.1 (Kettle Ponds and Centennial Ridge), and MA 3.5 (Solomon Creek, Little Snake Creek, and Sandstone Creek).

Discussion

According to Forest Service policy,

[p]lanning for units of the National Forest System involves two levels of decisions. The first is development of a forest plan that provides direction for all resource management programs, practices, uses, and protection measures...The second level planning involves the analysis and implementation of management practices designed to achieve the goals and objectives of the forest plan. This level involves site-specific analysis to meet NEPA requirements for decisionmaking (FSM 1922).

The broad direction in a forest plan is provided through goals, objectives, multiple-use prescriptions, and associated standards and guidelines (36 CFR 219.11(c)). While it is permissible under the 1982 planning regulations to make site-specific decisions in a Record of Decision (ROD) for a forest plan, such decisions would be accompanied by the requisite site-specific analysis, would include disclosure of the site-specific effects and would be documented in the FEIS (see 40 CFR 1502.20, FSM 1950.1-3 and FSH 1909.12).

In keeping with planning regulations and Forest Service policy, the Medicine Bow NF LRMP is programmatic in nature, providing “guidance for all resource management activities on a national forest” (LRMP, p. i). The LRMP specifies that it “does not make project level decisions. Those decisions are made after more detailed, site-specific analysis and further public comment” (LRMP, p. iv). In his ROD approving the revised LRMP, the Regional Forester notes that his decisions are programmatic with the exceptions of an oil and gas leasing availability decision for specific lands and designation of specific areas as Research Natural Areas (ROD, p. 1).

One appellant contends “the Decision” contains a number of site-specific closure decisions related to snowmobiling “without acknowledging and supporting” them (NOA #0028, p. 1). The examples provided were the allocation of management prescriptions “eliminating snowmobile access from portions of the southern Sierra Madres (i.e. Solomon Creek & East Fork Encampment River), Kettle Ponds, Centennial Ridge, eastern Libby Flats and the Illinois Creek area” (NOA #0028, p. 1). In presenting the areas in question, the appellant references the FEIS Management Area Map (NOA #0028, pp. 1 and 6). The map shows that the areas are allocated to Management Areas 1.31 Backcountry Recreation, Year-round Nonmotorized; 2.1 Special Interest Areas; and

3.5 Forested Flora or Fauna Habitats, Limited Snowmobiling (Management Area Map, Alternative D (FEIS)).

Two other appellants contend that snowmobiling has been constrained or eliminated from the Kettle Ponds and Centennial Ridge Special Interest Areas (SIAs) without sufficient analysis to demonstrate the threat or conflict that snowmobiling poses to their management objectives (NOA #0032 and 0033). These appellants also contend snowmobiling has been restricted in the MA 1.31 areas on the Encampment River and by Cunningham Park, and the MA 3.5 areas on the Little Snake and Sandstone Creeks without sufficient demonstration of a purpose and need or analysis of the economic impact to surrounding communities (NOA #0032 and 0033, p. 4).

The caption on the Winter Adopted Recreation Opportunity Spectrum map (reverse side of the Management Area Map) states:

These Adopted Recreation Opportunity Spectrum (ROS) Class maps depict the kind of recreational experience a user can expect to encounter, or that may be encountered in the future as management area direction is implemented. ...ROS is a planning and management tool to delineate, define, and integrate outdoor recreation settings and opportunities in land and resource management planning. ROS delineations are not a Forest Plan decision.

Management direction for MA 2.1f, Kettle Ponds SIA, includes Recreation Guideline 3, “Manage for a summer ROS class of Roaded Natural, and a winter ROS class of Semi-primitive Motorized on designated trails, Semi-primitive Nonmotorized off trails” (LRMP, p. 2-25). Recreation Guideline 1 for MA 2.1m, Centennial Ridge SIA, states, “Manage for a summer ROS class of Semi-primitive motorized and Semi-primitive nonmotorized” (LRMP, p. 2-28)⁶. It is noteworthy that this direction is provided as guidelines. The Medicine Bow NF LRMP defines *guidelines* as “advisable courses of action that should be followed to achieve forest goals. Deviations ... must be analyzed during project level analysis and documented in a project level decision document” (LRMP, p. 1-25).

The forest plan and the accompanying Winter Adopted Recreation Opportunity Spectrum Map make it clear that the delineation of ROS classes is done to establish a tool for future planning and management, and is not a final decision made by the forest plan. As explained in the section of the FEIS disclosing effects from recreation management on soils, “During implementation of the forest plan, site-specific project analysis will identify and address localized adverse effects from snowmobiles and other ORV uses” (FEIS, p. 3-86). This approach would also apply to effects on forest resources other than soils.

In contrast to the travel and ROS-related management direction for Kettle Ponds and Centennial Ridge SIAs, MA 1.31 Backcountry Recreation, Year-round Nonmotorized, includes Infrastructure Standard 1: “Motorized travel is prohibited except when authorized by special use permit or for administrative or emergency purposes” (LRMP, p. 2-11), and Transportation Standard 1, “Prohibit motorized uses” (LRMP, p. 2-13)⁷; and MA 3.5 Forested Flora or Fauna Habitats, Limited

⁶ The winter ROS class to be managed for has been omitted in this guideline.

⁷ Note that this standard is more restrictive to motorized travel than Infrastructure Standard 1 for the same management area.

Snowmobiling, Recreation includes Recreation Standard 1, “Limit snowmobiling to designated over-the-snow routes” (LRMP, p. 2-42). The Medicine Bow NF LRMP defines *standards* as “actions that must be followed or are required limits to activities in order to achieve forest goals” (LRMP, p. 1-25).

The inclusion of the above-referenced management direction as standards, and the way those standards are worded, suggests site-specific decisions on all motorized travel, including winter travel, have been made. This is in apparent contradiction to the Regional Forester’s statement in the ROD that his decisions are programmatic and not final, site-specific decisions, except for oil and gas leasing availability and designation of Research Natural Areas.

Decision

It is apparent that the Regional Forester anticipates further analysis prior to making any specific decisions regarding trail closures or changes in existing uses. As stated in the ROD, the Medicine Bow NF LRMP provides overall systematic guidance and establishes management direction to govern future actions. During implementation of the forest plan, site-specific project analyses will identify and address localized adverse effects from snowmobiles. I find the FEIS adequate in addressing these contentions on a programmatic basis.

I reverse in part the Regional Forester on MA 1.31, Infrastructure Standard 1 and Transportation Standard 1; and MA 3.5, Recreation Standard 1. To be commensurate with the level of analysis and decision made, the standards must be written so that closure decisions of areas or trails to snowmobile use would not be implied. The Regional Forester considered closures or constraints to existing snowmobile uses outside the scope of the Medicine Bow NF LRMP revision and requiring an appropriate level of analysis not found in the FEIS.

APPENDIX A – APPELLANTS

The appellants and their Notice of Appeal (NOA) tracking numbers are listed in the following table. Each appellant will receive a copy of this appeal decision.

Appellant	Representing	Notice of Appeal (NOA)
Marc R. Stimpert	Medicine Bow National Forest Plan Coalition	04-13-00-0027
Matt Burkhart	Recreationist of the Bow; Blue Ribbon Coalition	04-13-00-0028
Chris Borer	Mountain Meadow Cabins	04-13-00-0032
Chris Borer	Coalition of Medicine Bow Businesses	04-13-00-0033
Jeremy Nichols	Biodiversity Conservation Alliance, Center for Native Ecosystems	04-13-00-0035
Mark Squillace	No affiliation	04-13-00-0036