
FLATHEAD NATIONAL FOREST LAND MANAGEMENT PLAN REVISION AND THE NORTHERN CONTINENTAL DIVIDE ECOSYSTEM PLAN AMENDMENTS

Reviewing Officer Response to Eligible Objections



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Introduction

The objection issues raised cover a broad range of resource management and public use concerns. However, many were similar enough to consolidate under specific topic areas. To facilitate my review and this response to the issues raised, I have grouped similar issues under general resource headings with one response provided for all objectors. Some, but not all remedies are included as examples of those provided for each issue.

The Forest Plan operates under the legal framework of the Multiple Use Sustained Yield Act, which requires sustainable, integrated resource management of the Forest in the context of the broader landscape. My review considers this, and the Forest Service obligations under the National Forest Management Act and the 2012 planning rule implementation regulations, the Endangered Species Act, and other related laws, regulation, and policy.

My review resulted in some instructions for Forest Supervisor Weber, as the responsible official for the revised plan. I found that for most issues, review of the final environmental impact statement (final EIS), the land management plan (revised plan), the Northern Continental Divide Ecosystem plan amendments for the Kootenai, Lolo, Helena, and Lewis and Clark land management plans (NCDE amendments), the draft records of decision (RODs), and associated planning record established that the responsible officials sufficiently addressed the objection issues and are in compliance with current law, regulation, and policy. The instructions provided are summarized at the end of the response.

For ease of discussion throughout this document, the Flathead National Forest will be referred to as “the Forest” when referencing the single administrative unit, the staff that administers the unit, or the National Forest System lands within the unit. A list of acronyms is located at the end of the response.

National Environmental Policy Act (NEPA)

Issue Summary – Programmatic NEPA Review

Objectors contend the effects analysis is inadequate.

Objectors

Multiple objectors indicated the need for additional analysis related to various resource issues. This response addresses the broad obligations under the NEPA as it relates to programmatic environmental review. See the resource specific objection issue summaries for the detailed findings per my review.

Objectors’ Proposed Remedies

Suggested remedies included revising the analysis or choosing alternative C, with modifications. See resource specific objection issue summaries for additional proposed remedies.

Background

The concept of “programmatic” NEPA reviews is imbedded in the Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508) that address analyses of “broad actions” and the tiering process. In 2014, CEQ issued guidance for the effective use of programmatic NEPA reviews (CEQ 2014). The final EIS for the revised plan and NCDE amendments fits under *III. When to use a programmatic and tiered NEPA review* as a “decision to adopt formal plans, such as documents that guide or constrain alternative uses of Federal resources, upon which future agency actions will be based”.

Response

Allegations of insufficient effects analysis and misrepresentation of baseline conditions are woven through many of the objections. Although I reviewed and responded to specific resource area objections throughout this response, I wanted to provide the context for my review of this programmatic level analysis.

As indicated by the 2014 CEQ guidance, programmatic NEPA reviews address the general environmental issues relating to broad decisions, such as those establishing the revised plan and NCDE amendments, and can effectively frame the scope of subsequent site- and project-specific Federal actions. Because impacts in a programmatic NEPA review typically concern environmental effects over a large geographic and/or time horizon, the depth and detail in programmatic analyses reflects the major broad and general impacts that might result from making broad programmatic decisions. Programmatic NEPA reviews address the broad environmental consequences relevant at the programmatic level.

The final EIS is clear about the context of the decision being made and how it relates to the context and intensity of any potential impacts (sections 1.7, 2.2.2, and in the methodology descriptions of individual resource sections). Section 3.1 indicates the environmental consequences are assessed on a large scale in contrast to analyses conducted for site-specific projects. The final EIS presents a programmatic action at the Forest level of analysis but does not predict what will happen each time the standards and guidelines are implemented. Environmental consequences of individual, site-specific projects on the Forest are not described. The environmental effects of individual projects will depend on the implementation of each project, the environmental conditions at each project location, and the application of the plan direction in each case. The discussions of the affected environment and environmental consequences in the final EIS allow a reasonable prediction of consequences on the Forest. However, as appropriate at the programmatic scale, the final EIS does not describe every environmental process or condition.

Conclusion

Unless otherwise indicated in a response to a specific resource area objection in the sections to follow, I find Forest Supervisor Weber disclosed the appropriate level of detail required for a programmatic NEPA review.

Issue Summary – Response to Comments

Objectors contend the final EIS does not adequately respond to comments on the draft EIS.

Objectors

Sierra Club, Flathead-Lolo-Bitterroot Citizen Task Force, Swan View Coalition, Capital Trail Vehicle Association

Objectors' Proposed Remedies

Suggested remedies included revising the analysis and/or considering additional alternatives. See resource specific issues for additional proposed remedies.

Background

CEQ regulations at 40 CFR 1503.4 requires Federal agencies to assess and consider comments both individually and collectively, but do not require a point-by-point response. If a number of comments are identical or very similar, agencies may group the comments and prepare a single answer for each group. Comments may be summarized if they are especially voluminous ([*CEQ Forty Most Asked Questions*](#)).

An agency may respond by one or more of the following possible responses (40 CFR 1503.4):

- Modify alternatives including the proposed action.

- Develop and evaluate alternatives not previously given serious consideration by the agency.
- Supplement, improve, or modify its analyses.
- Make factual corrections.
- 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.

Response

This response addresses the broad obligations under the NEPA as it relates to responding to public comments on the draft EIS. My review found that the content analysis process used for categorizing and summarizing comments was a systematic method to assess and consider public comment. Appendix 8 of the final EIS includes both summarized and detailed responses to the approximately 34,000 comment letters received from individuals and organizations.

In addition, Forest Supervisor Weber modified alternative B for the forest plan and alternative 2 for the amendments, and also modified the analysis and made corrections to the revised plan and final EIS per the possible responses described at 40 CFR 1503.4 of the CEQ regulations. Descriptions of specific modifications based on public comment can be found in each section of the final EIS under the header "Notable changes between the draft and final EIS".

Conclusion

I find Forest Supervisor Weber met the obligations under the NEPA as it relates to responding to public comments on the draft EIS.

Issue Summary – Range of Alternatives

Objectors contend the final EIS fails to provide a full range of alternatives.

Objectors

Capital Trail Vehicle Association, Montana Sierra Club, Friends of the Wild Swan, Alliance for Wild Rockies

Objectors' Proposed Remedies

"In March 2014, along with Swan View Coalition we presented the Flathead with our Citizen reVision based on sound scientific and economic principles that defined a sustainable future for the Flathead National Forest emphasizing the outstanding wild, natural, and recreational values while taking advantage of the opportunity to create new jobs through restoration work. We asked that this be developed into an alternative in the Environmental Impact Statement."

"Develop an alternative around ecosystem restoration."

"Retract the final plans and give our comments and issues a hard look in a revised evaluation, develop a reasonable multiple-use alternative, and use that alternative for each plan."

Background

Under the NEPA, the Forest Service must consider appropriate and reasonable alternatives sufficient to permit the responsible official a reasoned choice. The Council on Environmental Quality has indicated the "range of alternatives" referred to in 40 CFR 1505.1(e) includes all reasonable alternatives, which must be rigorously explored and objectively evaluated, as well as those other alternatives, which are eliminated from detailed study with a brief discussion of the reasons for eliminating them. In addition, they indicate that a reasonable range of alternatives depends on the nature of the proposal and the facts in each case

(CEQ Forty Most Asked Questions). Agencies are to focus on significant environmental issues and alternatives (40 CFR 1502.1).

Response

The proposed action is described in chapter 1 of the final EIS, which identifies changes in the social and ecological environment, resource demands, and scientific information that necessitates revision of the 1986 forest plan to ensure forest management is responsive to current issues and conditions. In addition, the nature of the proposal is informed by new policy in the form of the 2012 planning rule (FEIS, section 1.4).

The planning record indicates the Forest followed a robust public involvement process. Public engagement led to the identification of significant issues, defined as those directly or indirectly caused by implementing the proposed action, that involved potentially significant effects, and that could be meaningfully and reasonably evaluated and addressed within the programmatic scope of the revised plan, NCDE amendments, and final EIS.

Furthermore, the alternatives in the final EIS represent a range of possible management options that meet the purpose and need for change and address one or more significant issues. Each alternative emphasizes specific land and resource uses and de-emphasizes other uses in response to the significant issues, primarily by changing management area allocations. Per the NEPA and the CEQ regulations, the responsible official identified alternatives that address the significant issues, meet both the purpose and need for change, and that created a reasonable range of outputs, direction, costs, management requirements, and effects from which to choose.

Conclusions

My review finds Forest Supervisor Weber has considered a range of alternatives that is responsive to public comments and the identified significant issues, while meeting the stated goals for this project. Each alternative changes land and resource allocations to emphasize or de-emphasizes various, sometimes conflicting uses in response to the significant issues. Although some members of the public requested review of additional alternative mixes or allocations of National Forest System lands and resources, the potential list of alternative allocations of resources would be exhaustive. I find Forest Supervisor Weber addressed those interests within the range of alternatives considered in detail and eliminated from detailed study (FEIS, section 2.4 and FEIS, appendix 8). For example, publicly suggested alternatives such as the Citizen reVision alternative, is similar to Alternative C and I found it is adequately considered there and in the alternatives eliminated from detailed study (FEIS, p. 38 and draft ROD p. 10).

Issue Summary – Environmentally Preferred Alternative

Objectors contend the draft ROD incorrectly identifies alternative B modified as the environmentally preferred alternative.

Objectors

The Wilderness Society, Swan View Coalition

Objector's Proposed Remedy

“We respectfully request that you carefully review this portion of the Draft ROD and instruct the Responsible Official to correct these glaring flaws. We believe that an objective review of the EIS will compel a finding that Alternative C – not Alternative B Modified – is the environmentally preferred alternative. At a minimum, the Forest Service must provide a more balanced and objective analysis of the comparative environmental effects of Alternatives B and C.”

Background

CEQ regulations at 40 CFR 1505.2 (b) requires agencies specify the alternative or alternatives which were considered to be environmentally preferable. In addition, an agency also “may discuss preferences among alternatives based on relevant factors including economic and technical considerations and agency statutory missions”.

Forest Service NEPA regulations define an environmentally preferable alternative as “the alternative that will best promote the national environmental policy as expressed in the NEPA’s section 101. Ordinarily, the environmentally preferable alternative is that which causes the least harm to the biological and physical environment; it is also the alternative which best protects and preserves historic, cultural, and natural resources” (36 CFR 220.3).

Response

Objectors that raise this issue advocate for the maximum area of recommended wilderness land allocation as the environmental preferable action, thus preferring alternative C. The draft ROD describes how alternative B modified better addresses the six goals of section 101 of the NEPA, as it would emphasize moving forest conditions towards desired conditions while contributing to ecological, social, and economic sustainability.

Conclusions

I find Forest Supervisor Weber’s explanation of why he considers alternative B modified to be the environmentally preferred alternative on page 10-11 of the draft ROD is well reasoned and thorough.

Plan Framework

Issue Summary – Plan Component Sufficiency

Objectors contend desired conditions, objectives, guidelines, and suitability plan components are insufficient to protect resources.

Objectors

Multiple objectors indicated the plan components were insufficient to protect resources. This response addresses the broad obligations under the NFMA as it relates to how plan components as defined under the 2012 Planning Rule, guide future project and activity decision making. See further resource specific objection issue summaries for my response to additional plan component deficiency allegations, including objections to the coarse filter/fine filter planning approach at *Issue Summary – Persistence of Native Species*.

Objectors’ Proposed Remedies

The most commonly suggested remedy was to include additional standards, or change guidelines or suitability plan components to standards.

Background

The 2012 planning rule defines the required plan components, desired conditions, objectives, standards, guidelines, and suitability of lands at 36 CFR 219.7(e)(1). It requires projects be consistent with each applicable plan component and describes how consistency is determined at 36 CFR 219.15(d). Optional plan content in the plan can include potential management approaches or strategies and partnership opportunities or coordination activities (36 CFR 219.7(f)(2)).

Response

Several objectors contend the revised plan and NCDE amendments are insufficient because they view the desired conditions as “aspirational” and guidelines as “discretionary”. They assert the revised plan does not include adequate “enforceable” standards to provide the regulatory mechanism to protect resources as required by 2012 planning rule and or other requirements.

Although I address specific objections around this issue throughout this document, I wanted to provide a broad response to set the context for my review. I understand that many of the objectors are accustomed to the previous planning regulation framework where the Forest Service policy was that consistency could only be determined with respect to standards and guidelines, or just standards, because an individual project alone could almost never achieve objectives and desired conditions.

Although the Forest Service continues to believe that *any single* project or activity cannot achieve every desired condition or objective of a plan, the 2012 planning rule does provide direction for consistency to move the plan area *toward* desired conditions and objectives, or *to not preclude the eventual achievement of* desired conditions or objectives (see also the preamble to the planning rule 77 FR 21241, April 9, 2012). Thus, per the criteria for determining consistency at 36 CFR 219.7(d)(1), desired conditions may constrain a project if the project would preclude attainment of the desired conditions (USDA, 2015). This change in policy removes the previous planning regulation’s aspirational nature of desired conditions and objectives. Every project and activity must be consistent with the applicable plan components including desired conditions. In addition, a project or activity approval document must describe how the project or activity is consistent with applicable plan components.

As required by the planning rule (36 CFR 219.15) and as incorporated by the Forest Plan (p. 3), both standards *and* guidelines have mandatory project and activity consistency requirements. Consistency with a standard is determined by strict adherence to the specific terms of the standard, while consistency with a guideline allows for either strict adherence to the terms of the guideline, or deviation from the specific terms of the guideline if the purpose for which the guideline was included in the plan is met at the project level (FSH 1909.15, chapter 22). This approach to guidelines allows for flexibility as circumstances warrant; for example, when there is more than one way to achieve the intended purpose, or new information provides a better way to meet the purpose, *without lessening protections*.

Some objections requested standards or guidelines to require analysis or surveys prior to conducting management activities. However, standards or guidelines should not direct or compel processes such as analysis, assessment, consultation, planning, inventory, or monitoring. Those processes can be part of other plan content such as management approaches. The forest describes management approaches such as botanical species surveys and other processes to support plan implementation in appendix C to the revised plan. Additional detail regarding multiscale watershed analysis is discussed in *Issue Summary – Watershed and Multiscale Analysis*.

Conclusion

Other than the specific instances where I provide instructions to review new information to determine if additional plan components are warranted in response to a specific resource area objection in the sections to follow, I find Forest Supervisor Weber appropriately identified a suite of integrated plan components, supported by additional plan content, to meet the requirements of the 2012 planning rule and other law, regulation, and policy.

Issue Summary – Overall Scientific Integrity

Objectors contend the revised plan is not based on the best available scientific information (BASIS) and the final EIS is not informed by scientific integrity.

Objectors

Multiple objectors alleged a lack of scientific integrity throughout the analysis in general or regarding a specific issue. Responses to specific objections regarding the science used to inform grizzly bear habitat, aquatic habitat, and other resource plan components are addressed later in this document. This response addresses the broad obligations under the NEPA and the NFMA as they relate to considering scientific information during planning and environmental analysis.

Objectors' Proposed Remedies

“We request the FS prepare a Supplemental Draft EIS that addresses the analytical and scientific issues identified in this objection, and simultaneously undertake the Science Consistency Review process for the Supplemental Draft EIS and Assessment.”

Other remedies proposed requested additional analysis or changes in plan components. See the resource-specific responses for more detail.

Background

Section 219.3 of the 2012 planning rule addresses the role of science in planning. It requires the responsible official to use the best available scientific information to inform the planning process. In doing so, the responsible official determines what information is the most accurate, reliable, and relevant to the issues being considered.

Forest Service Handbook (FSH) 1909.12, chapter 07 describes the use of best available scientific information to inform the land management planning process. It describes how scientific information should be integrated in the planning process and indicates the plan decision document should summarize the general process of how the BASI was identified, evaluated, and used throughout the planning process. This summary should describe outreach to gather scientific information, the evaluation process, models and methods used, evaluation of risks, uncertainties, or assumptions, and any science reviews conducted (chapter 07.15b).

CEQ regulations at 40 CFR 1502.24 require Federal agencies to insure the professional integrity, including scientific integrity, of the discussions and analyses in the environmental impact statements.

Response

Objectors contend that the final EIS does not adequately respond to the Forest Service's legal obligations under the 2012 planning rule, primarily through its failure to use the best available science. One objector alleges the Forest Service cherry-picked the literature, selecting only those papers that support its views.

The draft ROD discusses the role of science in the revision effort. It indicates the Forest interdisciplinary team of resource professionals compiled and evaluated the relevant information for the assessment of the Forest (USDA, 2014a) and the best available scientific information and analyses contained therein. From this foundation, the interdisciplinary team used and updated the best available scientific information to develop the proposed action (May 2015), the alternatives, and the analysis and comparison of alternatives in the draft EIS (May 2016). This information includes material that was readily available from public sources (libraries, research institutions, scientific journals, and online literature). It also includes information obtained from other sources, such as participation and attendance at scientific conferences, scientific knowledge from local experts, findings from ongoing research projects, workshops and collaborations, professional knowledge and experience, and information received during public participation periods.

The final EIS provides documentation of how the best available scientific information was used to inform planning, the plan components, and other plan content, including the plan monitoring program throughout individual resource sections and in general at section 3.1.1. Resource specialists considered what is most

accurate, reliable, and relevant in their use of the best available scientific information to inform the plan development. This includes all or portions of the publications listed in the reference sections of the assessment and the final EIS, as well as any additional information that was used and is included in the planning record (e.g., see Kuennen, 2014). These documents also include reference to and discussion of responsible opposing views or incomplete scientific information, as appropriate under the CEQ regulations.

Some of the objector's issues regarding the consideration of scientific information are related to their allegations that the Forest failed to adequately respond to comments on the draft EIS because it did not provide a point-by-point response to their individual comments. See *Issue Summary – Response to Comments* for my response to that general issue.

However, as it relates to consideration of scientific information commenters have provided to inform the plan components, the breadth of documentation does make it challenging to determine how that information was considered per the requirements of the 2012 planning rule's consideration of public engagement to ensure the use of best available scientific information (FSH 1909.12, chapter 42.12). Therefore, I'm instructing Forest Supervisor Weber to clarify in the record how scientific information that was provided in public comment, but not cited in the assessment or final EIS, was considered during plan development and analysis.

Conclusion

Overall, I find the assessment, final EIS, and planning record demonstrates scientific integrity and the consideration of the best available scientific information to inform the plan revision. The draft ROD discloses the methodology for integrating consideration of the best available scientific information throughout the planning process. However, additional clarification will ensure transparency in Forest Supervisor Weber's consideration of the scientific information provided through public engagement.

Issue Summary – Monitoring

Objectors contend the monitoring plan is inadequate and fails to comply with the planning rule and other requirements.

Objectors

Friends of the Wild Swan, WildEarth Guardians, Alliance for the Wild Rockies, Stephen Braun

Objectors' Proposed Remedies

"Designate old growth associated wildlife as focal species to be monitored."

"Develop a comprehensive monitoring strategy for fish and wildlife and their habitat. Designate wildlife focal species."

"Revise the plan components intended to protect bull trout and its critical habitat to reflect best available scientific information, comply with the 2012 planning rule requirements for diversity, and include a monitoring plan with meaningful timelines and parameters consistent with the 2012 planning rule and Forest Service directives that enables the responsible official to determine if a change in plan components is needed."

Background

Direction for the monitoring and evaluation of forest plans is found under the 2012 planning rule at 36 CFR 219.12 and in the directives at 1909.12 chapter 30.

Executive Order 11514 states, “Agencies shall develop programs and measures to protect and enhance environmental quality and *shall assess progress* in meeting the specific objectives of such activities” [*emphasis added here*].

Response

As required by CFR 219.12, the plan monitoring program includes questions and indicators to monitor key ecological conditions, including conditions that contribute to the recovery, conservation, or maintenance of at-risk species (revised plan, chapter 5, pp. 153-172). Monitoring questions and indicators are informed by the best available scientific information, (36 CFR 219.3 and 219.14; revised plan chapter 5, pp. 153-172; draft ROD, pp. 25-27), including those parameters established for monitoring the effectiveness of road restrictions (revised plan, chapter 5, pp. 169). Monitoring under the 1986 forest plan has helped inform the assessment and the development of plan components (FEIS, appendix 8, pp. 8-36; revised plan, chapter 5, p. 155). The monitoring program is within the financial and technical capability of the Forest and includes some broad-scale protocols (CFR 219.12(b); FEIS, appendix 8, pp. 247-253; revised plan chapter 5, pp. 153-172).

Several objectors raised concerns about the need to monitor specific species, plan components, or management strategies. Under CFR 219.12, Forest Supervisor Weber has the discretion to set the scope, scale, and priorities for plan monitoring. While not every plan component must link to a monitoring question, the monitoring program includes a wide spectrum of questions designed to monitor indicators of ecological integrity or management success across many different resource areas. This includes questions and indicators addressing vegetation conditions, habitat, critical habitat, stressors, and some individual species mentioned by objectors (i.e. bull trout, lynx, and grizzly bear) (revised plan, chapter 5, pp. 153-172; FEIS, appendix 8 pp. 248-253).

As the Forest Service has previously determined, “The final rule does not require monitoring species population trends. . . . The requirement for monitoring questions that address the status of focal species is linked to the requirement of § 219.9 of the final rule to provide for ecosystem integrity and diversity, which describes the coarse-filter approach for providing diversity of plant and animal communities and the persistence of native species in the plan area. Focal species are not intended to provide information about the persistence of any individual species.” (Federal Register, volume 77, number 68, pp. 21233-21234).

One objector noted concern about the frequency of reporting on culverts and other indicators. The data collection and reporting interval can vary across indicators, and individual biennial monitoring evaluation reports are not required to report on every monitoring item (FSH 1909.12, chapter 34; revised plan, pp. 154). The Fish and Wildlife Service has approved the proposed Culvert Monitoring Plan, which is based on best available scientific information (USFWS, 2017; FEIS, appendix 8, pp. 247-248; draft ROD, pp. 37).

Finally, I would like to note that the monitoring program is not intended to depict all monitoring activities undertaken by the Forest, nor is the Forest limited to conducting only this monitoring. The biennial evaluation of the monitoring information will help determine whether a change to the plan or change to the monitoring program is warranted based on new information, whether a new assessment may be needed, or whether there is no need for change at that time (36 CFR 219.5)

Conclusion

With regard to the objection issues raised, I find Forest Supervisor Weber, pursuant to CFR 219.12 and other regulations (including EO 11514), appropriately developed an adequate monitoring program using best available scientific information.

Issue Summary – Coordination with Other Planning Efforts

Objectors contend the final FEIS did not adequately review the growth policies of all the surrounding counties and that coordination with local, state, and tribal governments was inadequate.

Objectors

Citizens for Balanced Use, Capital Trail Vehicle Association

Objector's Proposed Remedies

"I request the plan be remanded until an explanation of why consistency with local plans is unattainable."

"I request a consistency review and report be completed by the Forest Service of all the affected Counties, not just Flathead."

Background

The NFMA requires the Forest Service to "... develop, maintain, and, as appropriate, revise land and resource management plans for units of the National Forest System, coordinated with the land and resource management planning processes of State and local governments and other Federal agencies" (16 USC Part 1604(a)).

The Federal Land Policy and Management Act (FLPMA) states, "[i]n the development and revision of land use plans, the Secretary of Agriculture shall coordinate land use plans for lands in the National Forests with the land use planning and management programs of and for Indian Tribes by, among other things, considering the policies of approved Tribal land resource management programs" (43 U.S.C. 1712(b)).

The 2012 planning rule requires the responsible official to coordinate land management planning with the equivalent and related planning efforts of federally recognized Indian Tribes, Alaska Native Corporations, other Federal agencies, and State and local governments (36 CFR 219.4(b)). In doing so, the responsible official "shall review the planning and land use policies of federally recognized Indian Tribes, Alaska Native Corporations, other Federal agencies, and State and local governments, where relevant to the plan area. The results of this review shall be displayed in the environmental impact statement (EIS) for the plan (40 CFR 1502.16(c), 1506.2). The review shall include consideration of:

- (i) The objectives of federally recognized Indian Tribes, Alaska Native Corporations, other Federal agencies, and State and local governments, as expressed in their plans and policies;
- (ii) The compatibility and interrelated impacts of these plans and policies;
- (iii) Opportunities for the plan to address the impacts identified or to contribute to joint objectives; and
- (iv) Opportunities to resolve or reduce conflicts, within the context of developing the plan's desired conditions or objectives.

The land administered by the Forest is spread among six counties in Montana: Flathead, Lake, Lewis and Clark, Lincoln, Missoula, and Powell. After a detailed look at commuting patterns, timber processing areas, and recreational visitation, it was determined that the area of influence (the analysis area) for the social and economic analysis would consist of four counties in northwestern Montana that are adjacent to, or in the immediate vicinity of the Flathead National Forest: Flathead, Lake, Lincoln, and Sanders (FEIS, section 3.27.1).

Response

Objectors assert that the Flathead National Forest did not coordinate with state, local, and tribal governments and did not perform a consistency review of the forest plan with local resource plans. However, the record demonstrates a robust coordination effort during the revision effort through an interagency group with Tribal, Federal, State, and county governments. In addition to government-to-government consultation with the Confederated Salish and Kootenai Tribes, the interdisciplinary team worked directly with Tribal resource specialist.

The Forest invited Federal, Tribal, State, and local entities from around the region to participate in interagency group meetings beginning in 2013. These included the National Park Service (Glacier National Park), U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, U.S. Border Patrol, Confederated Salish and Kootenai Tribes, Montana Department of Natural Resources and Conservation, Montana Fish, Wildlife and Parks, and five counties: Flathead, Missoula, Lake, Sanders (did not attend), Lincoln (did not attend) (Meridian, 2017). Not all entities participated in every meeting, but a core group of people attended regularly. The process enabled the Forest to better evaluate whether each interagency group member's respective planning and land use documents were or were not consistent with the forest plan, and discuss opportunities to resolve or reduce conflicts.

Although objector alleges only Flathead County's growth plan was considered, the related and equivalent county plans for counties within the area of influence (Flathead, Lake, Lincoln, and Sanders (FEIS, section 3.27.1)) were considered and evaluated for consistency with the revised plan. Sanders County does not have a county growth policy, but as Missoula County participated in the interagency group, the Forest included its growth policy in the review. The planning record includes documentation of the planning and land use policy review with a summary of the results in the final EIS (section 1.6) consistent with the requirements at 36 CFR 219.4(b). The final EIS at section 1.6 discloses the Forest determined that the revised plan is generally compatible with the Flathead, Missoula, Lake, and Lincoln County growth policies, specifically the natural resource components. The only exception is for certain goals and objectives related to forest management, recommended wilderness, fire and fuels management, recreation, and roads.

The objector contends that consistency with the Flathead County growth policy is required by federal statute for coordination. However, full consistency is not required. The requirements to coordinate land management planning with equivalent and related planning efforts includes reviewing planning and land use policies in consideration of the expressed objectives, the compatibility and interrelated impacts, the opportunities to address those impacts, and the opportunities to resolve or reduce conflicts, within the context of achieving the Forest Service desired conditions or objectives (36 CFR 219.4(b)). The Forest Service recognizes the role of State, local, Tribal governments, and other Federal agencies in the planning process is unique. Actively seeing coordination and participation with these partners is essential to the successful development and implementation of forest plans. The Forest sought to do this through regular interagency group meetings. The results of those meetings and the review of the planning and land use policies are documented in the final EIS and planning record.

Conclusion

I find Forest Supervisor Weber complied with the requirements to coordinate the development of the revised plan with the other government land use planning efforts as required by the NFMA and the 2012 planning rule.

Management Areas

Issue Summary – Swan Valley

Objectors contend the forest management area 6c (high intensity) allocation in all or a portion of the Swan Valley should be changed to 6b (moderate intensity) to protect the high conservation values present in the area.

Objectors

Gary Wolfe, Rita Wolfe, Sharon Lamar, Peter and Caroline Guynn, Anne Dahl, Kari Gunderson, Mike Childs and Diann Ericson, Sheri Burden

Objectors' Proposed Remedies

Although one objector would like to see all management area 6c lands in the Swan Valley changed to management area 6b, several objectors requested the change be made in four sections of the lower Elk Creek drainage (sections 3, 4, 5, and 9 of T20N, R17W).

Background

The objectors contend that sections 3, 4, 5, and 9 (T20N, R17W) in the Swan Valley have extremely high conservation values and deserve special protection. Portions of the private lands adjacent to national forest in sections 4 and 5 are protected by conservation easements with a primary focus on wildlife habitat security. The objectors feel that national forest lands in sections 4 and 5 should also be changed to management area 6b to tie these high-value conservation areas together with a consistent vegetation management strategy (namely, lower-intensity management).

I recognize there is a long history of community consensus building work in this area that has influenced management of both private and Federal lands over the past two decades. In the early 2000s, Plum Creek Timber Company owned section 3 and 9 (and section 35, which is not national forest land). These sections were identified as a priority for conservation by the Swan Ecosystem Center and other conservation organizations working in the Swan Valley. These three sections were designated as the Elk Creek Conservation Area, and an initiative to ensure their long-term conservation was developed.

In 2006, the Swan Ecosystem Center and the Confederated Salish and Kootenai Tribes acquired section 35 from Plum Creek with funding provided by the Bonneville Power Administration, which holds a conservation easement on the land. After the acquisition, sections 3, 9, and 35 were collectively renamed the Elk Creek Community Forest. The Elk Creek Conservation Area initiative provided the inspiration for envisioning and launching the Montana Legacy Project (purchase of lands owned by Plum Creek for purposes of conservation protection). Sections 3 and 9 were eventually acquired from Plum Creek by The Nature Conservancy as part of the Montana Legacy Project and were ultimately transferred to the Forest.

The forest plan proposed action (March 2015) and alternative B in the draft EIS (May 2016) mapped most of the lands suitable for timber production in the Swan Valley as management area 6b (medium-intensity vegetation management). Alternative D was developed in part to respond to public concerns with the need to actively manage fuels to reduce the risk of wildland fire spreading from the Forest onto adjacent private lands. This alternative mapped most of the wildland-urban interface in the Swan Valley as management area 6c (high-intensity vegetation management).

The final EIS (December 2017) included alternative B modified, which incorporated features from the other alternatives based on internal review and public comment. The final EIS identified alternative B modified as the preferred alternative. This is also the preliminary selected alternative (with minor changes) in the draft record of decision. Within the Swan Valley, alternative B modified incorporated most of management area 6c as displayed in alternative D of the draft EIS. The draft record of decision

states, the designation of these areas to management area 6c was partly based on public and interagency engagement to address concerns related to fire and fuels management. The desire is to maintain and provide as much flexibility as possible for active management in the wildland-urban interface.

Sections 3, 4, 5, and 9 are entirely within the wildland urban interface. However, regardless of a 6b or 6c management area allocation, plan direction for other resource values in the area such as eligible wild and scenic rivers and riparian management zones, will influence the level of active management that could occur. Approximately 65-70% of these sections are not suitable for timber production, but harvest would be allowed for other multiple-use purposes to achieve desired vegetation conditions.

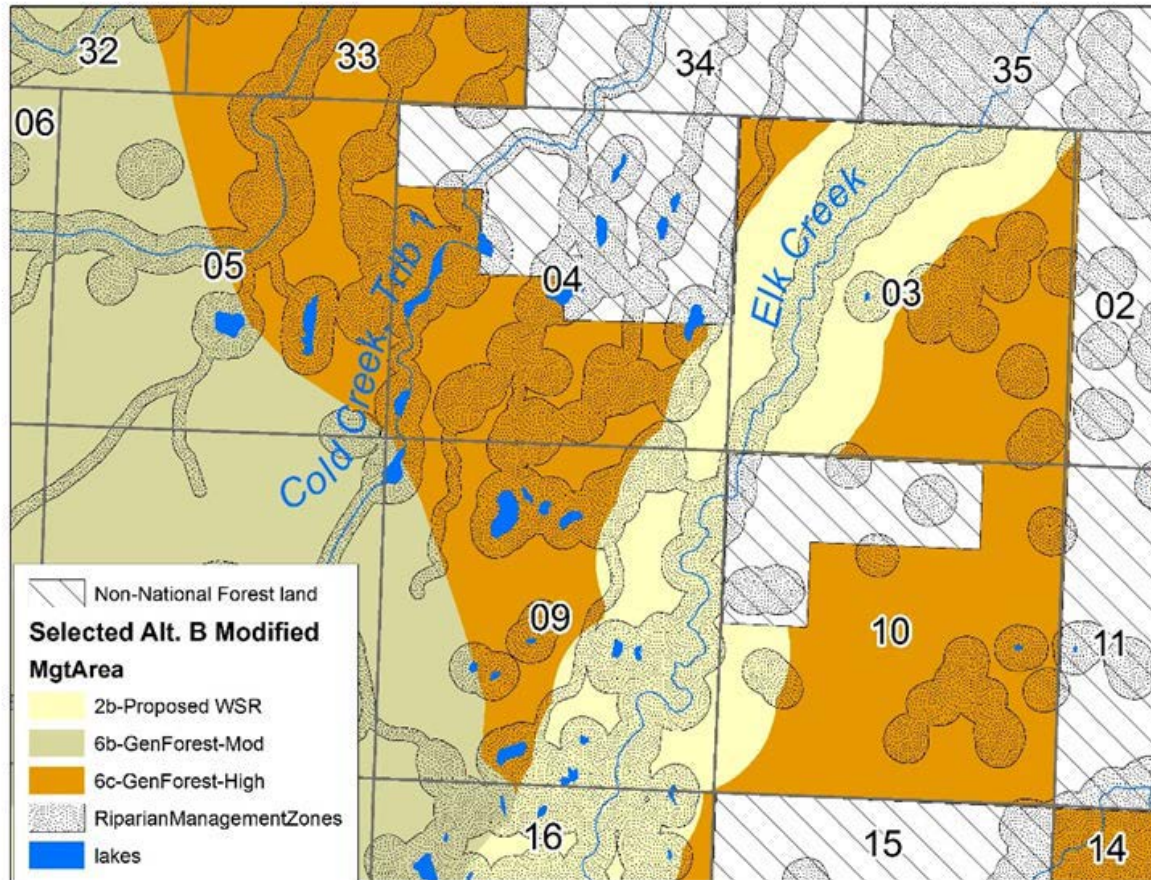


Figure 1. Map of sections 3, 4, 5, and 9 (T20N, R17W) displaying management area allocations and riparian management zones from the draft ROD.

Response

One of my interests at the objection resolution meeting was to seek a better understanding of how objectors perceived management would differ with an allocation of management area 6b or management area 6c. As a land manager, I recognize that both these management areas allow flexibility for vegetation management in the wildland-urban interface. As is the case in all management areas, the detailed treatment features would be determined at the project level, with site-specific concerns and conditions factored into the design and decision. I would expect the conservation values these areas provide to be considered at the project-level along with the application of the broad integrated plan direction for eligible wild and scenic rivers, riparian management zones, and other forestwide wildlife habitat management

desired conditions. However, I was curious how the objectors viewed the actual, on-the-ground difference for these sections with either a 6b or 6c management area allocation.

Several objectors described the history of industrial timber management in the area, and the difficulty in understanding the Forest Service's difference in intent between high-intensity (6c) and medium-intensity (6b) vegetation management. They described their view that the rich diversity, importance of water quality, and high fish and wildlife values should drive management of the area as opposed to high-intensity vegetation management, which from their perception, is often associated with high-intensity timber harvest. One objector even acknowledged the sections border private lands, and therefore clearly made the distinction and point he was not advocating for a change from 6c to 6a, which would be a low-intensity vegetation management. He fully recognized the importance of allowing moderate-intensity timber management to lower fire danger in the wildland urban interface.

Another objector provided a perspective on the range of annual productivity rates across land jurisdictions as one method to understand Forest Service management intensities, which are relatively low when compared to management of state school trust lands and private timber company lands. He described his expectation that the large amount of riparian management zones would keep the level of management relatively low, or low to moderate, given the revised plan management constraints to protect riparian and aquatic resources. While acknowledging the place-based values of these four sections, he advocated for keeping the door open for the range of management activities professional foresters and resource specialists might need to consider, particularly across the Swan Valley as a whole.

Conclusion

After considering the planning record, discussions with Forest staff during a field visit to this area, and the thoughtful dialog at the resolution meeting, I've decided to provide Forest Supervisor Weber instructions to change the management area allocation in sections 3, 4, 5, and 9 (T20N, R17W) from 6c (high-intensity vegetation management) to 6b (medium-intensity vegetation management). I understand the perspective of those objectors and stakeholders that commented during the plan development that desire maximum management flexibility for timber production and fuels management within the wildland urban interface. However, I also appreciate the long history of community-based efforts to seek conservation easements and consensus for creating timber management plans across all lands in the area.

The 2012 planning rule emphasizes an "all lands approach" to ensure land management planning takes place in the context of the larger landscape (preamble to the 2012 planning rule FR volume 77, No. 68 and 36 CFR 219.1(b)). In that context, I find it is appropriate to align the management intensity of these sections with the neighboring conservation easements on private and tribal lands.

I am also instructing Forest Supervisor Weber to provide additional clarification about expected activities associated with the varying vegetation management intensities in management area 6 to address objectors concerns regarding interpretation of low, moderate, and high-intensity vegetation management.

Issue Summary – Krause Basin

Objectors feel that Krause Basin should not be allocated as management area 7 – focused recreation. They believe the Forest should prohibit motor vehicle use and not mark motor vehicle access routes on the ground. Additional objection concerns include the potential for mechanized use to affect quiet recreation and the request for protection of all hemlock forest in the Krause Basin from timber harvest.

Objectors

Edd Blackler, Keith Blaylock, Carol Buchan, Margaret Davies, Michele Dieterich, Francesca Droll, Susan Foster, Chris Gotschalk, Alan Gratch, Swan View Coalition, John Larson, Norma Linsky, Jeff Lonn, Anna McCabe, Bill McCabe, Jim Nelson, Brian Peck, Ruth Quist, Fawn Simensen, Mary Via, Joel Vignere, and Pam Willison

Objectors' Proposed Remedies

“Do not designate Krause Basin as Focused Recreation Area. Instead, allocate the area to another management area such as 5 (back country) or 6a (low-intensity vegetation management).”

“Do not sign the currently designated ATV trails, and preferably, prohibit motor vehicle use. Some objectors requested prohibition of all motor vehicles, others indicated continued motor vehicle use on the Peters Ridge Road and Strawberry Lake Road would be acceptable.”

“Prohibit timber harvest to provide full protection for unique hemlock forests found in both Krause and Echo Creek Basins.”

“Partnering with neighbors in the Krause Basin area to patrol, maintain, pull weeds, and/or enforce the no motorized use. We live right next to the land & use it every day of the year, let us help. We can work together on this!”

Background

Located in the foothills of the Swan Mountains close to the communities of Kalispell and Bigfork, Montana, the Krause Creek area is adjacent to state and private land. The area provides both motorized and nonmotorized opportunities such as biking, hiking, horseback riding, snowmobiling, and off-highway vehicle use on 13 miles of trails designated for motor vehicle use in July and August on the Forest motor vehicle use map. These off-highway vehicle trails connect to a motorized trail system along the Swan Divide. During the winter, the area is suitable for motorized over-snow vehicle use.

Much of the area was logged in the 1960s and the area remains suitable for timber production in the draft ROD. An interpretive nature trail is located in a cedar/hemlock old forest stand. Although forest inventory assessment data indicates there are no stands in this area dominated by western hemlock (rather hemlock is a component within stands containing western redcedar and other species), an objector at the resolution meeting indicted there is at least one additional hemlock-dominated stand adjacent to the state lands.

In response to community desire to see more attention paid to front country recreation opportunities, 21 focused recreation areas were allocated (61,000 acres) in the revised plan. These areas typically feature certain types of recreation activities that occur near or at large lakes or reservoirs, developed ski areas or year-round resorts, large campgrounds, or trail systems. Recreational use already occurs at many of the areas. However, the intent of the focused management area allocation is that recreation uses would be enhanced through an emphasis on trail, road, and facility maintenance; increased visitor contact and education; and development of additional recreation opportunities (mountain bike trails, hiking trails, or boat ramps). These areas were deliberately chosen based on locations near community access, ability to accommodate recreation growth, and potential for benefits to local outdoor recreation economies. Desired conditions for focused recreation areas states “Focused recreational opportunities are provided in specific areas in response to increasing demand. Local communities can readily access these areas for a variety of motorized and nonmotorized experiences.” Vegetation management activities would occur to achieve desired conditions in this area. Timber harvest activities would be similar to management area 6b, which is a medium-intensity vegetation management allocation.

It's relevant to note that across this 2.1 million acre forest, there are only 226 miles of wheeled motorized trails (10 percent of the total trail system). The 13 miles in Krause Basin provides 6 percent of the Forest's wheeled motorized trail opportunities.

Response

Objectors and interested persons clearly shared the high value they hold for this area's near-community recreation opportunities, wildlife habitat, and hemlock groves. Those present at the resolution meeting shared their concern with illegal motor vehicle use occurring off designated trails, and appeared to be fairly unanimous in their desire for the area to provide mostly, if not all, only non-motorized recreation

opportunities. Many of the written objections referred to the number of comments, petitioners, and objections advocating for a non-motorized allocation of the area.

However, as I indicated at the resolution meeting, my decision is not made solely by counting “votes” for one allocation or another. I must consider multiple viewpoints and desires in managing our national forests under our multiple-use mandate. Although there were multiple comments throughout the revision process opposing motor vehicle use in the Krause Basin area, there were also comments throughout the revision process advocating for additional motor vehicle use across broad areas of the forest. (For example, see *Issue Summary – Motorized Access*.)

The written objections and participants at the resolution meeting reference the 1988 Noisy Face project decision to allow motor vehicle use on trails within the Krause Basin area. This 1988 decision provided direction for system and non-system trails and roads, occasional events, and area closures. This included authorizing 13 miles of non-system trails in the Krause Basin area for motorized use from July 2 to September 1. The decision indicated the routes would not be marked on the ground. However, the decision notice also indicated that monitoring would be used to evaluate the success of the management direction and that necessary adjustments would be made as needed to achieve the desired results.

In the intervening years since 1988, the Forest Service has worked to address unmanaged motor vehicle access impacts through the promulgation and implementation of the 2005 Travel Management Rule (36 CFR 212). Those regulations required the publication of a motor vehicle use map (MVUM) as the legal authorization of the routes and areas designated for motor vehicle use by class of vehicle and time of year. Motor vehicle use off designated roads and trails and outside designated areas is prohibited by 36 CFR 261.13. In order to facilitate effective enforcement of these prohibitions, Forest Service Manual direction at 7716.42 indicates route markers should be posted on routes designated for motor vehicle use as soon as practicable, corresponding to the information on the motor vehicle use map.

The 13 miles of trail authorized for motor vehicle use in Krause Basin are included on the Swan Lake Motor Vehicle Use Map, first published in April 2010. It is my understanding based on both the written objections and information provided by objectors and interested persons who attended the resolution meetings that unauthorized motor vehicle use is occurring off the motor vehicle use map’s designated routes resulting in the creation of unauthorized routes with the potential for adverse effects on local resource conditions and users’ recreation experience.

There appears to be several potential solutions to resolve these issues. Although the programmatic plan decision would not immediately change conditions on the ground, the revised plan would guide future management decisions that could improve recreation conditions in the Krause Basin area. The proposed guidance in the revised plan includes desired conditions for motorized trail experiences on designated and *signed* routes to guide more effective management of the current recreation opportunities and allow for clear enforcement of the MVUM. This management direction honors public input throughout the multi-year plan revision process for trails and recreation opportunities close to communities in the form of well-managed, focused recreation areas. Signing the routes and taking action to achieve other revised plan desired conditions such as providing education materials (e.g., FW-OBJ-REC-05) would be good first steps in reducing the resource and recreation impacts from unauthorized use.

Another option to resolve objectors’ concerns over unauthorized motor vehicle use and address their desire for the area to be non-motorized would be to remove the desired condition for existing trails to provide summer wheeled motorized trail experience and motorized winter recreation opportunities close to local communities. A suitability plan component could be added indicating the area is not suitable for

motor vehicle use¹. As the focused recreation management area direction is intended to provide both motorized and non-motorized recreation experiences, that allocation would still be an appropriate option.

However, some of the objectors' concerns are related to the perception that by allocating Krause basin as a focused recreation area (management area 7), the Forest intends to attract a lot of people to use and recreate in the area through development similar to the Hungry Horse Reservoir or Big Mountain (which includes Whitefish Mountain Resort). There is concern that the area and its facilities (e.g., parking and toilets) are inadequate to accommodate an increased level of recreation use.

An objector referred to a Montana Department of Natural Resources comment on the draft EIS stating the desired condition for Krause Basin "would be that existing trails do not facilitate motorized trespass on adjacent state lands" as evidence that interagency cooperation necessitates closing the trails. However, the desired condition for a signed and well-maintained trail system provides management guidance that should improve the forest user's understanding of where authorized motor vehicle use can occur and minimize potential motorized trespass on state lands per the State's desire.

Conclusion

Some objectors view the Noisy Face decision and associated biological opinion as a binding agreement that cannot be changed. However, changed resource conditions, new information, and changing public demands often lead to different management choices both at the programmatic and project scale as indicated in the need for change leading to the revised plan. Additionally, the Fish and Wildlife Service has provided a biological opinion for the revised plan that includes the desired condition for motor vehicle recreation on signed routes.

After my field visit with Forest staff and dialog with objectors at the resolution meeting, I fully recognize the complexities regarding management of this highly valued area of the Forest. I thank the objectors and interested parties for their passion and participation and for bringing the level of illegal use and those effects to my attention. This information was immediately shared with our Law Enforcement and Investigation officers, Forest Supervisor Chip Weber, and district staff for further action. I'm instructing Forest Supervisor Weber to develop a strategy for effective management of these routes per the Forest motor vehicle use map. This includes installing route markers per Forest Service Manual direction at 7716.42, discouraging unauthorized uses through site-appropriate means, and addressing adverse resource impacts when needed, working in partnership with the area's neighbors and other interested parties. As offered by an objector, working together we can achieve the revised plan's partnership and coordination desired conditions (e.g., FW-DC-P&C-06, 11, 17, and 18), and accomplish positive outcomes for neighboring communities, recreation users, and forest resources.

Although the 1988 Noisy Face decision was made with good intentions to address resource concerns and minimize impacts without marking the routes, it has not been effective to support managing motorized recreation in the area. Per the decision memo's indication that adjustments would be made as needed to achieve the desired results, I believe the revised plan direction is appropriate to guide improved management of the Krause Basin area.

I find that allocating this area as management area 7, focused recreation, is responsive to addressing a need to emphasize trail and facility maintenance, increased visitor contact, and education to enhance recreation activities in this area for both nearby residents and forest visitors. However, to address objectors' concerns regarding managing Krause Basin as a focused recreation area similar to Big Mountain or other high-use areas, I am also instructing Forest Supervisor Weber to provide additional

¹ Refer to my response under the Grizzly Bear heading for objections related to implementing 1986 forest plan amendment 19 direction and closing existing motorized trails to motorized use.

clarification about the range of recreation management opportunities provided in management area 7 across the forest.

In response to concerns regarding timber suitability and the potential harvest of unique hemlock groves, the revised plan includes both forestwide vegetation structure-forest and tree size classes (pp. 21-32) desired conditions, which include western hemlock, and an area-specific desired condition for the old forest conditions with cedar/hemlock stands within Krause Basin. I believe these provide sufficient direction to guide timber harvest and address objectors concerns.

Forest Products and Suitability for Timber Production

Issue Summary – Objectives within Fiscal Capability

Several objectors feel that the potential timber sale quantity (PTSQ) and potential wood sale quantity (PWSQ) stated in objectives FW-OBJ-TIMB 01 and 02 in the forest plan should clearly indicate that a higher level of timber harvest can be achieved with additional financial resources, while still meeting all plan requirements and restrictions.

Objectors

F. H. Stoltze Land and Lumber Company, Montana Logging Association

Objectors' Proposed Remedy

The objectors provided text modifying the forest plan timber objectives to make it clear that the budget constrained potential timber sale quantity is not an upper limit, but only an estimate of what could be achieved with reasonably foreseeable budgets.

Background

The 2012 planning rule requires the responsible official to ensure that the plan components, and other plan content, are within Forest Service authority, the inherent capability of the plan area, and the fiscal capability of the unit (36 CFR 219.1(g)). Chapter 60, section 64.32, of the Forest Service Handbook (FSH) 1909.12 indicates the estimation of both the projected wood sale quantity and the projected timber sale quantity must take into account the fiscal capability of the planning unit and be consistent with all plan components. Chapter 20, section 22.12, indicates that plan objectives must be attainable within the fiscal capability of the unit, determined through a trend analysis of the recent past budget obligations for the unit (3 to 5 years). However, it also indicates that other plan content may identify how the responsible official would respond to enhanced resources or other efficiencies that would facilitate attaining desired conditions.

Response

The methodology for identifying the timber outputs indicates an appropriate consideration of monetary limitations per the rule and handbook requirements for identifying timber and wood sale quantities (FEIS, appendix 2). As indicated in the revised plan (p. 6), “objectives were developed considering historic and expected budget allocations as well as professional experience with implementing various resource programs and activities”, which meets the 2012 planning rule requirements to account for reasonably foreseeable budgets.

The revised plan continues with: “It is possible that objectives could either exceed or not meet a target based upon a number of factors, including budget and staffing increases or decreases, increased or decreased planning efficiencies, and unanticipated resource constraints.” In addition, for timber output objectives specific to this objection issue the final EIS analysis indicates higher levels of timber outputs are possible with additional budget and staffing capacity while meeting all the plan requirements and

restrictions. Furthermore, the analysis indicates the higher level of outputs would increase the pace and scale of achieving vegetation desired conditions (FEIS, section 3.21.2).

At the resolution meeting however, objectors expressed concern that future implementers would interpret the PTSQ as a limit rather than understanding it is based on current budget trends. They emphasized the importance for the plan to state what needs to be done to contribute to achieving ecological and economic desired conditions and that the information should not be buried in the final EIS.

In addition, both objectors and interested persons discussed the need to consider the opportunity to increase capacity for *all* the forest plan objectives (in addition to the wood sale quantity objectives) through shared stewardship with partners. For example, use of the “Good Neighbor Authority” is increasing the amount of both timber harvest and restoration activities on many National Forests above what has been accomplished in recent years. Given the desired conditions for partnerships, there may be additional opportunities to support achieving higher outcomes than currently projected for all plan objectives.

Conclusions

Given the multiple references and explanations of both the estimated timber outputs based on an unconstrained budget and the fact that objectives may exceed target based on factors including budget, the Forest has met the requirements of the applicable regulation and policy. However, I do believe it is important to recognize the opportunities to add capacity through shared stewardship and potential partner contributions. Therefore, I am instructing Forest Supervisor Weber to clarify in the ROD that forest plan objectives identified in the plan are based on current budget allocations and capacity and that they may be exceeded if additional funding and capacity is provided through budget allocations, new authorities, partnerships, or stewardship opportunities. In addition, I am instructing Forest Supervisor Weber include the following footnote to objectives FW-OBJ-TIMB-01 and 02 to address this specific objection issue:

Estimates of timber outputs may be larger or smaller on an annual basis, or over the life of the plan, if legal authorities, management efficiencies, or unanticipated constraints change in the future. Modeling of the projected timber sale quantity under an unlimited budget and consistent with all plan components resulted in an average annual volume output in the first decade of 38 million board feet (7.6 million cubic feet) (FEIS, section 3.21.2).

Issue Summary – Identification of Sustained Yield Limit

The objector contends the Forest has incorrectly calculated the sustained-yield limit for timber.

Objector

Defenders of Wildlife

Objector’s Proposed Remedy

“The first decade volume from suitable lands should be reduced to the second decade level.”

Background

The National Forest Management Act (NFMA) requires the sale of timber from each national forest be limited to a quantity equal to or less than a quantity which can be removed from such forest annually in perpetuity on a sustained-yield basis (16 USC 1611; 36 CFR 219.11(d)(6)). The NFMA implementing regulations at 36 CFR 219 and directives at FSH 1909.12 chapter 60 describe how those limits are calculated.

Response

The objector contends the Forest sustained yield limit was incorrectly calculated because the computations included lands that are not suitable for timber production. The allegation is that because the

sustained yield limit is incorrect, harvest levels are not limited to what is sustainable over time. Further, because the Forest identified lower harvest levels from lands suitable for timber production in the second decade, the objector indicates the Forest failed to provide “notification of a planned departure from non-declining even flow”.

The objector quotes the NFMA provision that requires forest plans “determine forest management systems, *harvesting levels*, and procedures in the light of all of the (multiple) uses ... and the availability of lands and their suitability for resource management (16 USC 1604 6(e)(2)), that they be coordinated with other multiple uses (16 USC 1604 (e)(1)) and that forest plans be “integrated” (16 USC 1604 (f)(1)) [*emphasis added here*]. The objector appears to equate the reference to “*harvesting levels*” here with the sustained yield limit calculations. However, under the implementation directives of the 2012 planning rule (FSH 1909.12 chapter 60), the NFMA’s required *harvesting levels* determination is identified with the calculation of the potential timber sale and potential wood sale quantities (PTSQ and PWSQ). As described on section 3.21 and page 8-140 to 141 of appendix 8 of the final EIS, these projected sale quantities (or *harvesting levels*) were formulated by considering the lands suitable for timber production, lands where harvest is allowed for other resource desired conditions, vegetation desired conditions, other resource objectives, and the planned uses and restrictions of the plan alternatives. Thus, they were appropriately coordinated and integrated with other multiple uses as the objector’s NFMA citation requires.

Regarding the calculation of sustained yield limit, the NFMA requires that forest plans “limit the sale of timber from each National Forest to a quantity which can be removed from such forest annually in perpetuity on a sustained-yield basis” (16 USC 1611(a)). The NFMA does not specify which lands are to be considered when determining this limit. However the Multiple Use Sustained Yield Act defines sustained yield as “the achievement and maintenance in perpetuity of a high level of annual or regular periodic output of the various renewable resources of the national forests *without impairment of the productivity of the land*” (16 USC 531(b)). Thus, the implementation directives of the 2012 planning rule (FSH 1909.12 chapter 60) indicate the sustained yield limit is calculated from all National Forest lands except those that are legally withdrawn, are not forested, or where timber cannot be removed “*without impairment of the productivity of the land*” following the criteria in FSH 1909.12 chapters 61 and 64.3.

The objector disagrees with this approach because some of the lands included in the sustained yield limit calculation, may later be found not suitable for timber *production* because production would not be compatible with all multiple use constraints included in the plan (as required by 36 CFR 219.11(a)(1)(iii)). However, the NFMA permits timber harvest from lands not suited for timber production for salvage sales or sales necessitated to protect other multiple-use values (16 USC 1604(k)). And 36 CFR 219.11(c) provides additional clarification that timber may be harvested from lands not suited for timber production if the harvest is used to improve wildlife habitat, reduce fire risk, or other multiple-use values (36 CFR 219.11(c)). Given the NFMA limitations of timber removal applies to *all* national forest system lands (16 USC 1611(a)) not just the lands suited for timber production, the Forest calculations are consistent with the NFMA as delineated by FSH 1909.12, chapter 60.

The sustained yield limit is neither a target nor a projected harvest level; it is the upper limit of timber that could be offered annually in perpetuity based on growth and yield. Actual timber sale levels (*harvesting levels*) would depend on any number of factors, including constraints on timber harvest in the forest plan (e.g., suitability components and standards and guidelines), project-level analysis, and the fiscal capability of the planning unit. Anticipated sale volume based on these factors is reflected in the projected timber sale quantity and projected wood sale quantity described in FW-OBJ-TIMB-01 and 02, which are 5.5 mmcf (27.3 mmbf) and 6.3 mmcf, both of which are considerably lower than the sustained yield limit of 25.4 mmcf. Even with an unlimited budget (removing fiscal capability as a constraint on timber harvest projections), the anticipated sale volume that could be achieved while still complying with constraints on timber harvest in the forest plan is a PTSQ of 7.6 mmcf and PWSQ of 8.6 mmcf.

The 2012 planning rule and the implementation directives indicate that a plan may provide for departures from the sustained yield limit as provided by the NFMA when departure would be consistent with the plan's desired conditions and objectives. Exceptions for departure from this limit on the quantity sold may be made only after a public review and comment period of at least 90 days (36 CFR.11(d)(6)(i)). However, as indicated above, the revised plan's PTSQ and PWSQ are not departed from the sustained yield limit therefore public notification is not required. There is no requirement in the NFMA for a non-declining even flow of timber. Timber volumes may change from decade to decade as long harvest levels are consistent with management for all multiple uses and do not exceed the capability of the land to sustainably produce timber.

Additional information regarding the development of FSH 1909.12 guidance for "Timber Volume Calculation" can be found on pages 70 to 72 of the Response to Comments on the Proposed Land Management Planning Directives online at the following link:

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprd3828565.pdf.

Conclusion

Based on the documentation in the final EIS (section 3.21 and appendix 2), I find Forest Supervisor Weber appropriately identified the sustained yield limit and harvesting levels consistent with the NFMA and its implementing regulations and directives.

Issue Summary – Identification of Lands Suitable for Timber Production

Objectors contend determinations of areas suitable for timber production are arbitrary.

Objectors

Defenders of Wildlife, Friends of the Wild Swan, Steve Windbigler

Objectors' Proposed Remedies

"Delineate a management area for riparian areas that definitively excludes them from the timber base because they are unsuitable for logging."

"Remove Conservation Watershed Networks from MA 6a, 6b, and 6c."

"Without an analysis that demonstrates a predicable volume is compatible with areas such as grizzly bear management zones or areas, conservation watersheds, or high-value connectivity areas, they must be considered not suited for timber production."

Background

36 CFR 219.11 outlines the timber requirements based on the NFMA, which include the need to identify lands suited and not suited for timber production, outline limitations on timber harvest, and provide components to ensure timber harvests will be carried out in a manner consistent with the protection of other resources.

A two-step approach is used to identify lands not suited for timber production. Per 1909.12 chapter 61, the first step is to *identify lands that are not suited* based on legal and technical factors at 36 CFR 219.11 (a) (i), (ii), (iv), (v,) and (vi). After subtracting the lands that are not suited from the total of National Forest System lands, the remaining lands are lands that *may be suited for timber production*.

The second step is to determine for each alternative in the plan EIS which of the lands that may be suitable for timber production (identified in step 1) are suited for timber production based on compatibility with desired conditions and objectives. In making this determination the responsible official should consider the following to determine if timber production is compatible with the desired conditions and objectives of the plan:

1. Timber production is a desired primary or secondary use of the land.
2. Timber production is anticipated to continue after desired conditions have been achieved.
3. A flow of timber can be planned and scheduled on a reasonably predictable basis.
4. Regeneration of the stand is intended.
5. Timber production is compatible with the desired conditions or objectives for the land designed to fulfill the requirements of 36 CFR 219.8 to 219.10.

The definition of timber production is “the purposeful growing, tending, harvesting, and regeneration of regulated crops of trees to be cut into logs, bolts, or other round sections for industrial or consumer use” (36 CFR 219.19).

Response

The objector contends that the desired conditions for grizzly bears, wildlife connectivity, and conservation watersheds are incompatible with timber production because the analysis does not demonstrate a flow of timber can be planned and scheduled on a reasonably predictable basis per #3 (from background above).

However, as indicated at #1, timber production may be a desired primary or *secondary* use of the land. Thus, areas with desired conditions for multiple resource values per 36 CFR 219.8 to 219.10 (#5), in addition to the desired condition to provide a regulated crop of trees may be reasonably expected to provide some regular flow of timber products unless otherwise identified to be unsuitable for timber production. Appendices 2 and 3 of the final EIS disclose how watershed desired conditions, and connectivity for grizzly bears and other wildlife were considered during vegetation and timber analysis (modeling). Additional planning records at (Trechsel, 2015; Ake, 2015; Frament, 2017) also document the consideration of these resources. (See additional information regarding my response to the adequacy of the plan direction for these resources throughout this document.)

One objector advocates for no “logging” within riparian management zones. Although riparian management zones are not suitable for timber production, harvest is allowed for other multiple use purpose (FW-SUIT-RMZ-01). Riparian management zones are not exclusion zones; they are areas where vegetation management is allowed to occur, guided by the desired conditions for vegetation and aquatic resources associated with riparian management zones. Timber harvest in the riparian management areas would be for the purpose of promoting desired conditions that maintain or improve ecosystem integrity and promote resilience of the vegetation, water, fish, wildlife, and soils resources. Standards and guidelines in the forest plan were developed to reduce the risk of potential effects to riparian and aquatic resources (FEIS, section 3.2.10).

Another objector expressed concern that not enough of the Forest was identified as suitable for timber harvest. However, my review of the final EIS and planning record indicates Forest Supervisor Weber gave careful consideration of the 2012 planning rule requirements for social, economic, and ecological sustainability as he identified the allocation of various multiple uses across the Forest. (Also, see my response at *Issue – Summary Amount and Location of Recommended Wilderness* for information related to this objection issue.)

Conclusion

Forest Supervisor Weber properly followed the process for identifying lands suitable for timber production as well as lands where timber harvest may be allowed for other purposes such as salvage, public health and safety, etc., in accordance with the planning rule.

Issue Summary – Salvage Logging

An objector contends the revised plan fails to provide sufficient direction to maintain ecosystem integrity and associated plant and animal diversity when conducting salvage logging.

Objector

Defenders of Wildlife

Objector's Proposed Remedy

“Provide plan direction that removes the arbitrariness from salvage logging decision-making.”

Background

The NFMA allows for the removal of timber in salvage or sanitation harvests (section 11, 16 U.S.C. 1611).

Response

The application of salvage or sanitation harvest is guided by the same requirements as any other vegetation treatment. The ecological, economic, and social impacts associated with salvage harvest would be considered at the project level, based on site-specific conditions, consistent with forest plan direction designed to maintain ecological integrity and wildlife habitat when conducting management activities. In addition to coarse-filter forest plan direction for snag and large-tree retention for all timber harvest activities, the revised plan includes salvage-specific guidelines at FW-GDL-TIMB-01 through 03 to ensure the Forest retains a diversity of wildlife habitat during salvage harvest.

Part of the objector's remedy suggests the revised plan should prohibit salvage logging within areas that meet desired conditions and fall within the NRV for fire, insect, and/or disease disturbance and direct where salvage logging may be appropriate (i.e., public safety or critical infrastructure). However, a majority of the Forest (69 percent) falls within a designated area, including wilderness, recommended wilderness, or roadless, where the prohibition or limitation of salvage logging or other harvest has already been established. An additional 19 percent of the Forest is not suitable for timber production, but allows timber harvest such as the riparian management zones distributed throughout the forest or management area 6a (FEIS, section 3.21, *Timber suitability*). However, riparian management zone plan components designed to protect aquatic and riparian habitat would limit the extent of harvest, including salvage harvest. Thus, natural ecological processes are expected to play a dominant role across much of the forest (69 to 88 percent). The final EIS indicates this is expected to provide early successional “complex” and “unlogged” forest and snag habitat within the natural range of variation.

See the response to *Issue Summary – Plan Component Sufficiency* regarding the adequacy of using guidelines as the plan component to provide adequate plan direction to retain snags and down wood during harvest.

Conclusion

Review of the final EIS and planning record demonstrates Forest Supervisor Weber has considered this issue, and determined that incorporating management direction to restrict or prohibit the use of salvage harvest in specific locations is not appropriate (FEIS, appendix 8, pp. 8-145 to 8-147). Therefore, I find that the revised plan provides the appropriate direction necessary for maintaining ecological integrity and wildlife habitat (particularly snag habitat) when conducting management activities, which would include salvage harvest activities.

Issue Summary – Timber Management Effects on Wildlife

The objector contends the effects of timber management on wildlife may be distorted under the unconstrained budget scenario.

Objector

Defenders of Wildlife

Objector's Proposed Remedy

"The role of budgets in determining acres treated and their effects, and how that was used in selecting an alternative, must be discussed in the final ROD."

Background

The estimation of both the projected wood sale quantity and the projected timber sale quantity must take into account the fiscal capability of the planning unit and be consistent with all plan components (Forest Service Handbook (FSH) 1909.12, chapter. 60 pp. 5, 34, 37, and 39).

Response

The objector appears to view the disclosure of timber harvest levels that could be achieved without fiscal constraints as an *accelerated* harvest beyond the wildlife habitat constraints in the plan. However, it is apparent the modelling and effects analysis in the final EIS indicate that current fiscal capability and organizational capacity substantially *limit* the amount of timber harvest that could be sustainably achieved.

Timber harvest levels for the alternatives were calculated using a software modeling system (Spectrum) designed to assist decision makers in exploring and evaluating multiple resource management choices and objectives. It is a simulation and a predictor of projected timber sale quantity and acres treated used to display tradeoffs between alternatives and to predict sustainable timber harvest levels over time. Management actions are selected to achieve desired goals while complying with all identified management objectives, such as constraints for wildlife and budget limitations. The model was run with a mix of objective functions based on the theme of each alternative. Alternative A was run with an objective to maximize timber production, whereas alternatives B modified and C had objectives to move towards vegetation desired conditions as quickly as possible while meeting other resource objectives such as constraints for wildlife such as grizzly bear, lynx, and winter range. Alternative D had the objective function of maximizing timber and then moving towards vegetation desired condition, while still considering the constraints for wildlife included in alternatives B and C (FEIS, section 3.21).

Although the identification of the timber and wood sale quantities must be constrained by fiscal and organizational capacity of the Forest, the model was also run without a budget limitation to determine the highest sustainable harvest level possible. Table 154 and 156 in section 3.21.2 displays harvest volumes and acres treated that might be feasible if budgets were increased above what is reasonably foreseeable. It's relevant to note that the projected highest average annual acres treated with an unconstrained budget on the 2.2 million acre Forest would be 3,885 acres (0.2% of the Forest).

One of the constraints on harvest levels is reflected by areas suitable for timber production, or timber harvest at low to moderate intensities. To analyze and display forest management differences between alternatives, the forest plan management areas (1 through 7) have been grouped into "management emphasis groups" in the Spectrum model. Section 3.3.2 of the final EIS describes the expected active and passive management influences in these groups and appendix 2 indicates how these stratifications were applied in the model to influence projected outcomes.

Additional constraints in the model, including the measures and management direction for aquatic habitat, riparian areas, watersheds, white-tailed deer winter habitat, grizzly bear habitat, and lynx habitat affects the amount of timber volume available under all alternatives. Timber volume is reduced because the timber harvest scheduling would be affected by (1) limits to decreases in security habitat and limits to increases in open motorized route density and total motorized route density, (2) limits on openings in white-tailed deer winter habitat, and (3) limits on regeneration harvest per decade in lynx habitat (except

in portions of the wildland-urban interface where exemptions to standards are allowed). In addition, protection measures for watersheds and aquatic habitat limit the amount of openings and the type of harvest. The Spectrum model contained constraints on the percentage of area harvested per decade estimated to meet management requirements for each of these species and resources at a programmatic level (FEIS, section 3.21.2).

Appendix 2 (pp. 2-11 through 2-22) describes the various Spectrum inputs and sensitivity analysis results used to model potential timber outcomes across alternatives. The wildlife effects analysis in section 3.7 of the final EIS, describes how the Spectrum model outputs were used in the SIMPPLE model to estimate the natural range of variation and current and potential future habitat for a select set of wildlife species over the next 50 years (see appendix 3). Section 3.7.6 of the final EIS describes the identification of connectivity areas and the effects of plan direction and outcomes.

Conclusion

I find the projected timber harvest levels and acres treated, both with and without budget limits, appropriately considered wildlife habitat constraints both indirectly through timber suitability mapping (e.g., by varying management intensities), and directly by applying harvest constraints specifically for grizzly bear, lynx, connectivity, and winter range as described above.

Socioeconomics

Issue Summary – Failure to Increase Jobs and Income

The objector is concerned that the final environmental impact statement does not provide an alternative that improves income and employment for low-income and depressed counties.

Objector

Citizens for Balanced Use

Objector's Proposed Remedy

“The analysis should expand the timber versus non-timber job-related activity to at least show the timber-related jobs from 1970 to present. Cumulative effects of increased regulation and litigation on timber jobs must be shown to ascertain a clear picture of what the forest-related timber jobs contributed to the local economy and what that contribution could or would be if timber resources were again available.”

Background

A key requirement of the 2012 planning rule is to demonstrate that the forest plan contributes to social and economic sustainability, i.e. the Forest continues to provide resource program-related goods and services over time. The Forest is not required or directly responsible for improving economic or social conditions generally or in specific communities.

Response

The objector claims the analysis shows that income and employment remains unchanged across all alternatives and therefore fails to provide an alternative that would increase employment and wages. However, my review of the final EIS finds that timber harvest volumes, and jobs and labor income associated with timber outputs, are estimated to vary across alternatives. All alternatives except alternative C increase the amount of jobs and income from current levels. As stated in the final EIS, “As shown in table 178 and table 179, income and employment levels would be higher than current (years 2015 and 2016) for all alternatives. Alternatives A, B modified, and D all would produce more jobs and income over current levels, with alternative D producing the most” (FEIS, section 3.27.4).

Per the objector's suggested remedy, as indicated in the economic analysis, economic contributions disclosed in the final EIS are based on *projected* timber volumes. However, the final EIS also discloses that the actual amount of timber offered is influenced by a variety of factors, including factors outside the authority of the Forest Service such as litigation (FEIS, section 3.21).

Conclusion

As indicated in the analysis cited above and in the draft ROD (p. 6), the Forest will contribute approximately \$55 million in labor income and 1,600 local jobs to the local communities, which is an increase of \$5 million and 100 jobs over current management. In addition, the programs highlighted in the jobs and labor income impacts table make contributions to social and economic sustainability by continuing the provision of key goods and services to communities around the Forest. Therefore, I find the forest plan and final EIS are sufficient.

Issue Summary – Environmental Justice

An objector contends the selected alternative would have an adverse effect on low-income and minority populations. The objector alleges the final EIS does not adequately address environmental justice issues in violation of the Environmental Justice Act.

Objectors

Citizens for Balanced Use

Objector's Proposed Remedy

"The revised plan should be set aside until an alternative is developed to address environmental justice concerns."

Background

The Forest Service is directed to consider effects to low-income and minority populations by Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994, amended).

The EO on environmental justice directs Federal agencies to focus on the human health and environmental conditions in minority and low-income communities, especially in instances where decisions may adversely impact these populations. The Council on Environmental Quality (CEQ) provides guidance for incorporating environmental justice considerations into environmental analyses (December 1997).

Response

The Council on Environmental Quality guidance was used to define and identify potential environmental justice populations in the planning area (see the April 2014 *Assessment of the Flathead National Forest, Part 2*, and the FEIS, sections 3.27.2 through 3.27.4). The final EIS analysis of the social and economic environment and environmental consequences concluded that no populations in the planning area would experience significant or disproportionate adverse human health impacts or environmental effects due to any alternative actions considered in the final EIS (section 3.27.4).

Conclusions

My review finds no evidence the alternatives under consideration by Forest Supervisor Weber would result in adverse effects to environmental justice populations. Rather, as disclosed in the draft ROD and as supported in the planning record (Larson, 2017), the selected alternative would result in increases in labor income and local jobs over current management (draft ROD p. 6). Therefore, an additional alternative to address adverse impacts to minority and low-income populations under the EO is not warranted.

Issue Summary – Economic Analysis of Ecosystem Restoration

An objector contends the final environmental impact statement fails to provide an economic analysis for the forest plan's ecosystem recovery program and activities and to demonstrate economic benefit to communities.

Objector

Sierra Club

Objector's Proposed Remedies

"The final EIS should provide an adequate economic analysis, including economic benefits in terms of jobs and income, based on ecosystem restoration elements within each program in the forest plan and not limited to vegetation management."

"The final record of decision should include ecosystem restoration as a primary decision criteria with a discussion of how these were considered."

Response

Ecosystem restoration that is funded by the Forest Service and completed by Forest Service employees or contractors is represented in the Forest Service Operations row of the economic impacts table on pages (FEIS, section 3.3.3). Ecosystem restoration that is funded external of the agency, by third-party organizations, was removed from the final EIS because the conclusions were speculative and it would be more appropriately disclosed for site-specific third party contracted restoration projects (FEIS, appendix 8 p. 8-311).

There are no requirements for the record of decision to use ecosystem restoration as a primary decision criterion.

Conclusion

I find that the final EIS adequately discloses the forecastable economic impacts from ecosystem restoration. The final EIS also includes rationale for why a forecast of the economic influence of third party ecosystem restoration is omitted. The draft ROD discloses how the plan provides for ecological sustainability and the economic contributions of the expected management activities that will occur to maintain or restore ecosystem integrity.

Issue Summary – Economic Risks of Climate Change

An objector asserts the final EIS does not disclose the economic risk as a consequence of climate-forced forest change via drought and heat, including heat-induced increases of beetle and fire.

Objector

Lance Olsen

Objector's Proposed Remedy

Provide additional analysis and monitoring.

Response

When developing plan components, the planning rule requires the responsible official to consider reasonably foreseeable risks to ecological, social, and economic sustainability, as well as stressors such as climate change (CFR 219.8; FSH 1909.12, chapter 20, section 23.21).

As indicated in the response to comments on the draft EIS (FEIS, appendix 8, pp. 8-127, 8-128, and 8-304), climate change is recognized as a potential stressor and is integrated into the discussion of the

affected environment and environmental consequences to resources in the final EIS (sections 3.2.7, 3.2.9, 3.2.12, 3.7.4, 3.7.5, 3.7.6, and 3.8). Potential climate change impacts on socioeconomics are also addressed in cumulative effects (FEIS, section 3.27.4).

Appendix 7 of the final EIS provides a summary of the climate change adaptation strategies incorporated into the plan, and the documentation and analysis in the final EIS related to climate change was expanded to address previously voiced public concern (FEIS, appendix 8, p. 8-128).

The revised plan's monitoring program provides monitoring questions and indicators addressing socioeconomics and stressors such as climate change as required by the planning rule (revised plan, pp 158-172). Furthermore, the Forest Service is an active partner in the Northern Rockies Adaptation Partnership, a collaborative effort with the goal of increasing climate change awareness, assessing vulnerability, and developing science-based adaptation strategies to reduce adverse effects of climate change.

Conclusion

I find that the revised plan and monitoring program meet the planning rule requirements to consider climate change. In addition, I find the final EIS provides the appropriate level of analysis for a programmatic review of this issue and adequately accounts for the economic impacts of climate change.

Issue Summary – Alternative Selection and Fiscal Responsibility

An objector indicates the Forest Service is being fiscally irresponsible by not selecting alternative C for implementation.

Objector

Michele Dieterich

Objector's Proposed Remedy

"Reduce the number of timber sales as proposed in alternative C."

Background

The 2012 planning rule requires the responsible official to "ensure that the planning process, plan components, and other plan content are within... the fiscal capability of the unit" (36 CFR 219.1(g)). At the programmatic level, "a land management plan provides a framework for integrated resource management and for guiding project and activity decisionmaking on a national forest", but "does not authorize projects or activities or commit the Forest Service to take action" (36 CFR 219.2(b)). There are no requirements in the planning rule or under the NEPA that require a financial efficiency analysis to determine implementation costs at this programmatic level.

Response

The objector alleges the reduced timber sale volume contemplated under alternative C would save taxpayers \$2.2 million annually. Their issue is associated with the timber sale road construction and the related impacts to terrestrial and aquatic habitat, particularly given a current backlog of road maintenance needs.

The selected alternative includes objectives to address road-related effects through decommissioning, intermittent stored service, reconstruction, and maintenance over the life of the plan (FW-OBJ-IFS-01 through 03 on page 65 of the forest plan). Timber harvests often generate revenue used to supplement road maintenance funding. As indicated in the final EIS, funding for restoration projects is a constraint under all alternatives. However, with higher amounts of timber harvest, there could be more money generated from timber receipts to apply to the implementation of restoration projects, including those for watersheds and fisheries (FEIS, section 3.2.8). As indicated in the water quality effects analysis, the

effects of log hauling on aquatic resources is dependent upon a number of variables, such as road surface, miles to access harvest units, proximity of a road to a stream, the amount of volume on a log truck, etc. (FEIS, section 3.2). The appropriate scale to analyze these types of impacts and their associated financial analysis is at the project level, where effects, costs, and revenues can be estimated accurately.

It is highly speculative to determine any specific taxpayer cost-savings associated with the programmatic plan direction, as it does not authorize specific projects or activities. As explained in appendix 8 of the final EIS (p. 8-13), timber sales offered by the Forest Service that are valued over \$100,000 are analyzed for financial and economic feasibility before they are brought to market. A sale must be able to generate enough revenue to cover capital improvements to the project area as well as perform the required restoration work. If surplus funds are generated from a timber sale, additional restoration work may be completed. If a timber sale is not able to pay for the required site work, or if the market demand is not likely to be strong enough for competitive bidding, the timber sale project design must be altered in the planning stages. Timber sales are not expected to pay for the entirety of the Forest Service budget, but they do contribute economically and socially to rural communities and help accomplish the vegetation management objectives of the agency.

Conclusion

I concur with Forest Supervisor Weber's rationale that the higher timber harvest levels under alternative B modified provide the Forest's sustainable share of products and uses demanded by the public, with a higher probability of improving and restoring vegetation for future generations than alternative C. The greater opportunity to move vegetation towards desired conditions will provide for more resistant and resilient forests. This improves the health of our forests and watersheds, enhances wildlife habitat, and reduces undesirable and unintended consequences.

Recreation

Issue Summary – Sustainable Recreation

Objectors assert the revised plan does not provide for sustainable recreation or work toward sustainable recreation settings, opportunities, or access. They contend plan components do not reflect integrated planning (specifically for motorized over-snow vehicles routes and area suitability) and do not identify desired recreation opportunity spectrum settings based on suitability determinations.

Objector

WildEarth Guardians

Objector's Proposed Remedies

Objectors suggested remedies range from revising the analysis and the record of decision to including additional standards and guidelines to provide for sustainable recreation settings, opportunities, and access.

In addition, they suggest revising the sustainable recreation monitoring plan questions and indicators to track whether recreational uses on the forest are sustainable and require annual reporting of compliance with FW-STD-REC-01 or FW-STD-REC-05.

Background

Per 36 CFR 219.10(b), "the plan must include plan components, including standards or guidelines, to provide for...sustainable recreation; including recreation settings, opportunities, and access; and scenic character. Recreation opportunities may include non-motorized, motorized, developed, and dispersed recreation on land, water, and in the air".

The 2012 planning rule implementation directives establish the recreation opportunity spectrum as the framework forest plan's spatial expression of sustainable recreation.

Response

Much of the objector's issue regarding lack of compliance with sustainable recreation requirements is related to the sufficiency of motorized recreation plan components to support recovery or conservation of federally identified species and/or compliance with the Travel Management Rule. Those issues are addressed in detail in *Issue Summary – Winter Travel Management*, and the *Wildlife* and *Grizzly Bear* sections of this document. This response focuses on the use of the recreation opportunity spectrum (ROS) to describe desired conditions and the sufficiency of the suite of plan components for those ROS settings.

One of the objector's primary concerns lies with the identification of the desired recreation opportunity spectrum (ROS) as a continuation of the "status quo of recreation management". They indicate that because the Forest Service relied on existing conditions to establish its ROS settings, rather than describing desired ROS settings based on legal and practical suitability of the desired conditions for those lands, the revised plan ignores any need to close the gap between existing and desired ROS. The objector also believe the revised plan lacks standards or guidelines making the ROS settings enforceable, alleging the 2012 planning rule requirement to include standards and guidelines specific to the ROS settings. Although they support the standard that prohibits new motorized routes or areas in primitive or semi-primitive non-motorized desired ROS settings (FW-STD-REC 03), they find it a low standard as a minimum floor for ROS settings.

In developing a proposed plan revision, Forest Supervisor Weber is required to review relevant information from the assessment and monitoring to identify a preliminary need to change the existing plan and to inform the development of plan components and other plan content (219.7(c)). FSM 1920.3 indicates it is the Agency's policy to use the current land management plan as a starting point for revision, and make changes based on a need to do so. Therefore, the existing routes and areas designated for motorized use were used as a starting point for motorized suitability and the desired recreation opportunity spectrums. Changes from the existing condition to identify the desired ROS in the forest plan were based on integrated resources considerations and public comment (Moore, 2017).

The definition and spatial expression of sustainable recreation in the forest plan uses the ROS as the framework for integrating recreation setting components (such as access, facilities, and scenic character) with other resource values (such as wildlife, botany, water) per and the requirements in the 2012 planning rule and implementing directives (FEIS, appendix 8, p. 8-298, and section 3.10.2). In other words, in addition to specific sustainable recreation plan components such as FW-DC-SREC-01, FW-DC-WREC-01, FW-DC-REC-09, and FW-DC-REC-12 through 15, there are numerous other plan components, including standards and guidelines as required by the rule which address recreation settings, opportunities, access, and scenic character, regardless if they have the descriptor of "sustainable recreation" in their text. This includes recreation-specific standards and guidelines (FW-STD-REC-01 through 05, FW-GDL-REC-01 through 06), as well as those associated with other resources (e.g. FW-GDL-WTR-06, FW-GDL-TE&V-05). It is the full suite of components across multiple resources that integrate sustainable recreation management in the plan.

Objectors also assert that the planning directives require the Forest Service to develop plan components necessary to close the gap between existing and desired ROS settings in a specific amount of time. They indicate the plan is insufficient because there are no standards or guidelines related to ROS settings that work towards sustainable recreation settings, opportunities, or access.

There are no requirements in the rule or the directives that compel a forest plan to achieve desired ROS settings in a specific amount of time. It's important to note that forest plans provide vision, strategy, guidance, and constraints to guide future decision making. Plans themselves do not compel Agency action or guarantee specific results (FSH 1909.12 chapter 21). However, it's also inaccurate to say the plan does

not include any plan components to help achieve desired recreation settings. There are standards and guidelines that constrain management actions to ensure desired recreation settings are maintained, achieved, or at the very least are not precluded. In addition, there are measurable and time-specific objectives for different management actions that may contribute to achieving desired recreation settings depending on where they are applied (e.g. FW-OBJ-IFS-01 to decommission roads).

Conclusion

My review indicates the Forest appropriately identified the desired ROS and associated plan components in the form of desired conditions, objectives, standards, and guidelines to provide for sustainable recreation. See additional information supporting this conclusion in the NFMA, Monitoring, Wildlife, Grizzly Bear, Lynx, and Winter Travel Management sections of this response.

Issue Summary – Winter Travel Management

Several objectors contend the Forest’s reliance on amendment 24 in the forest plan for motorized over-snow suitability allocation does not comply with the requirements of the Travel Management Rule, subpart C.

Objectors

Winter Wildlands Alliance, WildEarth Guardians, The Wilderness Society

Objectors’ Proposed Remedies

“The final ROD should state that forest-wide site-specific winter travel planning is required to designate OSV routes and areas in compliance with Subpart C of the Travel Management Rule.”

“The Forest Service must revise plan components and the analysis in the final EIS to demonstrate in the record how the Forest Service analyzed and located motorized use designations—particularly the late-season over-snow vehicles use in the NCDE grizzly bear primary conservation area—with the objective of minimizing harassment of wildlife, disruption of wildlife habitat, and damage to forest resources. Revise the sustainable recreation plan components and analysis in the final EIS to show in the record how the agency located motorized designations with the objective of minimizing conflicts by locating specific areas, routes, and trails for motorized use away from areas frequented by non-motorized uses. Revise the final record of decision to eliminate designations for late-season over-snow vehicles use in grizzly bear denning habitat.”

Background

The 2005 Travel Management Rule requires designation of those roads, trails, and areas that are open to motor vehicle use. The purpose of clear identification of roads, trails, and areas for motor vehicle use is to enhance management of National Forest System lands; sustain natural resource values through more effective management of motor vehicle use; enhance opportunities for motorized recreation experiences on National Forest System lands; address needs for access to National Forest System lands; and preserve areas of opportunity on each National Forest for nonmotorized travel and experiences. Once designation is complete and a national forest has published a motor vehicle use map displaying the route and area designations, motor vehicle use inconsistent with the designation is prohibited per 36 CFR 261.

The Travel Management Rule implements Executive Order (E.O.) 11644 (February 8, 1972), “Use of Off-Road Vehicles on the Public Lands,” as amended by E.O. 11989 (May 24, 1977). These Executive orders direct Federal agencies to ensure that the use of off-road vehicles on public lands will be controlled and directed so as to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands.

In *designating* [emphasis added here] National Forest System trails and areas on National Forest System lands, the responsible official shall consider effects on the following with the objective of minimizing:

1. Damage to soil, watershed, vegetation, and other forest resources;
2. Harassment of wildlife and significant disruption of wildlife habitats;
3. Conflicts between motor vehicle use and existing or proposed recreation uses of National Forest System lands or neighboring Federal lands; and
4. Conflicts among different classes of motor vehicle uses of National Forest System lands or neighboring Federal lands.

In addition, the responsible official shall consider:

5. Compatibility of motor vehicle use with existing conditions in populated areas, taking into account sound, emissions, and other factors. (36 CFR 212.55(b), Specific criteria for designation of trails and areas)

The Forest Service codified these “minimization criteria” in subparts B and C of its Travel Management Regulations at 36 CFR 212 and the agency is required to comply with these criteria when *designating* routes or areas for OSV use.

Response

Some of the winter travel management objection issues were related to when site-specific winter travel management analysis would occur. See my response at *Issue Summary – Management of Recommended Wilderness* for information regarding site-specific planning per revised plan changes in suitability for mechanized transport and motorized use. My response to wildlife-related winter travel management issues are addressed in the *Wildlife* and *Grizzly Bear* sections. This response will focus on objections regarding compliance with subpart C of the Travel Management Rule.

In 2006, the Forest amended their Winter Motorized Recreation Plan to the 1986 Forest Plan as “Amendment 24”. This decision identified programmatic suitability *and* made the site-specific designation of routes and areas for over-snow motor vehicle use. It was the decision that supported issuance of a forest order per 36 CFR 261 enforcing the over-snow motor vehicle use map first published in 2007. This map has been the enforcing mechanism of the Forest’s over-snow vehicle motor vehicle route and area designations for 11 years in compliance with Travel Management Rule, subpart C at 36 CFR 212 and 261, despite over-snow motor vehicle use designations being optional prior to the 2015 update to the Travel Management Rule (80 CFR 4500-4512). The 2015 final rule does not require the Forest to revisit previously completed over-snow motor vehicle use designations. The 2006 decision authorizing those designations is not subject to objection here.

As one objector correctly notes, the programmatic decision under review here (to approve the revised plan) does not include site-specific decisions to prohibit or authorize designations of routes or areas, and thus will not change the 2006 winter travel management decision, its associated forest orders, and the over-snow motor vehicle motor vehicle use map. This is affirmed in section 1.7.2 of the final EIS which states, “the revised plan does not authorize site-specific prohibitions or activities; rather, it establishes broad direction, similar to zoning in a community.” And it is affirmed where the final EIS and the draft ROD indicate subsequent site-specific analysis of these areas will need to be conducted in order to adjust current public authorizations and prohibitions to achieve the revised plan desired ROS and be consistent with the suitability components per requirements at 36 CFR 219.15(e) (FEIS, section 1.4.7; draft ROD pp. 4, 45). Subpart B and C of the Travel Management Rule and the associated Executive Order 11644, Use of Off-Road Vehicles on the Public Lands, as amended by Executive Order 11989, apply to designations of motor vehicle use. As there are no specific designations of routes or areas at the programmatic decision level of this plan revision, and there will be no immediate changes to where oversnow motor vehicle use can occur with the plan approval, subpart C does not apply.

Objectors allege the Forest makes no attempt to demonstrate how it located the winter suitability determinations with the objective of minimizing harm to natural resources, harassment of wildlife, disturbance of wildlife habitat, or conflicts among uses. However, as discussed above the suitability determinations do not make the site-specific designations that require the consideration of minimizing harm that would be conducted during site-specific designations. Rather, the programmatic plan direction that identifies suitability and other plan components to guide resource management of the Forest will provide the context for applying the minimization criteria during site-specific designations. Compliance with plan components during designations to provide the ecological conditions to support species diversity, recovery and conservation of federally identified species, protect water quality, and describe recreation settings would all address aspects of the minimization criteria in the Travel Management Rule and the Executive Orders.

The responsible official can distinguish his decision space regarding the consideration of the minimization criteria for this programmatic decision from previous court cases in that the Forest already has established site-specific designations that authorize and prohibit motor vehicle use across the forest. With those in place, changes in suitability allocations in this revised plan are purely programmatic in nature and do not change any site-specific public uses (i.e., designations) until second-tiered, site-specific planning takes place. It is at that stage where the forest plan will guide the decision maker to apply the specific application of the minimization criteria.

As such, the draft ROD describes the consideration of minimization criteria in the broad context of the land allocations made at a programmatic level to balance multiple uses per the requirements of the Multiple Use Sustained Yield Act and the National Forest Management Act. The revised plan sets desired conditions, objectives, standards, guidelines, and suitability to frame and guide future forest management decisions. The management area allocations and direction, as well as the recreation opportunity spectrum allocations, are Forest Supervisor Weber's primary programmatic tool at the Forest scale to minimize conflicts by identifying broad areas where motorized or nonmotorized use may or may not generally be suitable (draft ROD 42-45).

One objector contends the Forest "skipped integrated planning in making changes to motorized OSV routes and area suitability, instead modifying suitability determinations in response to Whitefish Range Partnership recommendations." They allege that as a result of that limited change, the identification of suitability does not reflect integrated planning or the agency's substantive duties to achieve sustainable recreation.

As described in the response for *Issue Summary – Sustainable Recreation*, when developing a proposed plan revision, the responsible official is required to review relevant information from the assessment and monitoring to identify a preliminary need to change the existing plan and to inform the development of plan components and other plan content (36 CFR 219.7(c)). FSM 1920.3 indicates it is the Agency's policy to use the current land management plan as a starting point for revision, and make changes based on a need to do so. Therefore, the existing motorized routes and areas were appropriately used as the starting point for identifying motorized suitability plan components and as the baseline motorized suitability for the analysis in the EIS. Changes to motorized over-snow vehicle suitability were made in response to collaborative input, public comments, and resource needs, notably the Northern Rockies Lynx Management Direction. As a result of public input and the desired condition to balance opportunities for winter motorized recreation with maintaining lynx habitat, motorized over-snow vehicle suitability was reduced in some areas but increased in others (FEIS, section 2.4.3). These changes are reflected in the winter ROS maps and suitability components of alternative B modified, and the effects of these suitability changes were evaluated in the final EIS in the appropriate resource areas.

Another objector indicates the plan lacks clarity, contending the Forest fails to clearly articulate its proposed action regarding the site-specificity of winter motorized recreation plan direction. Their objection cites plan component examples they interpret as site-specific designations. For example,

because FW-DC-WREC-04 describes a desired condition that “routes are typically ungroomed but are often signed and marked,” with “vast areas to travel cross-country in designated areas” (revised plan p. 59), they indicate it implies that the ROS settings designate routes and areas for winter motorized use.

However, as indicated in the preceding paragraphs, I find the forest is very clear on the scope of the programmatic decision and the role of subsequent site-specific planning (e.g. FEIS, sections 1.4.7, 1.7.2, 3.12.2, and 3.15.3). Specific to the example cited above, desired condition FW-DC-WREC-04 states:

Winter semiprimitive motorized recreation opportunity spectrum settings provide backcountry skiing and snowmobiling opportunities. Routes are typically ungroomed but are often signed and marked. There are vast areas to travel cross-country in designated areas, offering visitors an opportunity for exploration and challenge. Occasionally, historic rental cabins are available for overnight use and warming huts are available for short breaks.

36 CFR 219.7(e)(1)(i) indicates “a desired condition is a description of specific social, economic, and/or ecological *characteristics* of the plan area, or a portion of the plan area, toward which management of the land and resources should be directed” [*emphasis added* here]. FW-DC-WREC-04 indicates a user should expect winter motorized recreation may be allowed to occur in this setting and describes the type of recreation experience a user should expect (routes will be signed but ungroomed and cross-country exploration opportunities). This is an appropriate description of the *characteristics* of the recreation setting and guides future oversnow motor vehicle designations and winter recreation management, but clearly does not designate a specific route or area.

Conclusion

I find the plan, the final EIS, and the draft ROD appropriately describe the application of the Travel Management Rule and associated executive orders at a programmatic scale. As described in my response to *Issue Summary – Management of Recommended Wilderness*, I am instructing Forest Supervisor Weber to identify a strategy in the final ROD for initiating site-specific planning per the changes in suitability for mechanized transport and motorized use in the revised plan direction.

Issue Summary – Motorized Access

Objectors claim the revised plan fails to provide adequate opportunities for motorized recreation and that the final EIS does not adequately disclose the impacts of trail closures on motorized users.

Objectors

Citizens for Balanced Use, Steve Windbigler, Capital Trail Vehicle Association, Flathead Snowmobile Association

Objectors’ Proposed Remedies

“...the Forest Plan must be remanded until an alternative increasing motorized access is provided to the public to comment on.”

“Leave the amount of wilderness designated in the North Fork as is and allow snowmobile access in the currently accessible areas alone in the Six Mile area.”

“Retract the final plans and give our comments and issues a hard look in a revised evaluation, develop a reasonable multiple-use alternative, and use that alternative for each plan.”

Background

Per 36 CFR 219.10(b), “the plan must include plan components, including standards or guidelines, to provide for...sustainable recreation; including recreation settings, opportunities, and access; and scenic

character. Recreation opportunities may include non-motorized, motorized, developed, and dispersed recreation on land, water, and in the air”.

Under the NEPA, the Forest Service must consider appropriate and reasonable alternatives sufficient to permit the responsible official a reasoned choice. (See my response at *Issue Summary- Range of Alternatives* for more information.)

Response

Although this was not included as a stand-alone objection issue on the resolution meeting agenda, many of the discussions around other topics such as recommended wilderness, Krause Basin, and winter travel management pertained to opportunities for more or less motorized or non-motorized access. I appreciate the strongly held values for these desired recreation opportunities and want to thank the meeting attendees for their thoughtful and respectful dialog.

To begin here, I want to thank participants for the good discussion around the remedy listed above regarding snowmobile access in the Six Mile area. As we discussed in the resolution meeting, the objection appears to stem from a misinterpretation of the draft ROD. The areas of concern, such as Thicket Creek and others in the Six Mile area, *are* suitable for over-snow motor vehicle use in the revised plan.

In consideration of the objections and those discussions at the resolution meeting, I gave the plan, final EIS and planning record a careful review. I found Forest Supervisor Weber thoughtfully considered a range of management area allocations, suitability determinations, and recreation opportunity spectrum classes to determine the allocation of land and resource uses to address public needs. As described in the draft ROD, the revised plan provides the best mix of management areas that reflects what he heard the public wanted. This includes areas for active management of timber products and fuel reduction, focused recreation areas, recommended wilderness areas, wild and scenic rivers, and backcountry areas that ranged from nonmotorized to motorized, while managing natural resources for ecological sustainability as required by the 2012 planning rule. The *Legal Framework* section in the draft ROD (p. 41) describes compliance with the Multiple Use Sustained Yield Act of 1960 through “sustainable, integrated management of the resources of the Forest in the context of the broader landscape, giving due consideration to the relative values of the various resources in particular areas”.

In addition, my review shows that the revised plan includes standards and guidelines to provide for sustainable recreation in accordance with 36 CFR 219.10 (b)(1) and that the final EIS includes a thorough consideration of motorized and non-motorized recreation opportunities throughout the *Human Uses* section of the final EIS (section 3.10.3; see also sections 2.4.1 and 2.4.3 and the appendix 8, pp. 8-34 and 8-35).

One of the objectors’ issues was that the plan didn’t include an alternative that increased motor vehicle use, particularly to provide for an aging demographic. The Forest considered mechanized and/or motorized opportunities for a variety of purposes, including providing access for seniors and people with disabilities. The alternatives provide for a variety of recreation opportunities, with some alternatives providing less and others more opportunities for mechanized transport or motorized use. Although it may not provide the full level of motorized recreation opportunities the objectors’ desire, alternative D includes more emphasis on motorized and roaded recreation opportunities than the other alternatives. Alternative D also includes additional focused recreation areas (management area 7), with an area featuring off-highway, single-track motorized recreational opportunities. (See section 3.10 of the final EIS (*Sustainable Recreation and Access Environmental Consequences*) in the final EIS for disclosure of these effects.

Conclusion

Although I recognize that not everyone may agree or see their desired level or location of a particular recreation opportunity, I find the suitability determination and management area allocation and the resultant opportunities for timber management and mechanized or motorized recreation under alternative B modified are responsive to the broad range of public comment while meeting the requirements for social, economic, and ecological sustainability. The programmatic analysis considered an adequate range of alternatives and sufficiently disclosed the programmatic effects of the revised plan.

As indicated above and at the resolution meeting, the revised plan addresses the objector's concern regarding the opportunity to snowmobile in the Six-Mile area. It is included in the revised plan as suitable for over-snow motor vehicle use.

Designated Areas

Issue Summary – Wild and Scenic Rivers

The objector contends that streams with critical habitat for sensitive, threatened, or endangered species should be ranked as having outstandingly remarkable values (ORVs) and should be made eligible wild and scenic rivers on the Forest.

Objector

WildEarth Guardians

Objector's Proposed Remedy

"The forest plan should give a fisheries or wildlife outstandingly remarkable value to all streams with critical habitat for sensitive, threatened, or endangered species and should adopt the eligibility suggestions in regards to stream segments that serve as critical bull trout habitat from the American Rivers et al. scoping comments."

Background

The threshold criteria to establish outstandingly remarkable values for fish and wildlife habitat are found in the Forest Service Handbook (FSH) 1909.12 chapter 82.73(a) and state:

- Fish habitat: "uniquely diverse or high quality habitat for fish species... Of particular significance is *exemplary habitat* for... Federal or State-listed or candidate threatened or endangered species"
- Wildlife Habitat: "uniquely diverse or high quality habitat for wildlife of national or regional significance... *unique habitat* or a *critical link* in habitat conditions for Federal or State-listed or candidate threatened or endangered species."

In addition, the interdisciplinary team is required to identify the "region of comparison," for each outstandingly remarkable value. The region of comparison may vary for different rivers or categories of outstandingly remarkable values and thus, multiple regions of comparison may be used to evaluate one river. A region of comparison should be scaled at an appropriate level for the type of river value being evaluated.

Response

The Forest completed a systematic eligibility inventory for rivers in 2006. During the revision planning process, the Forest refined the inventory because of new information submitted to the Regional Forester from Montanans for Healthy Rivers (FEIS, appendix 5). The Forest applied the criteria described in the planning directives to the river segments identified by the Montanans for Healthy Rivers, using a

qualitative ranking system to identify *rare* and *exemplary* habitat when compared to other rivers in the region of comparison. The population and habitat criterion measures and the regions of comparison for each resource are documented in appendix 5 of the final EIS. Although the presence of bull trout and bull trout critical habitat were factors considered during the inventory process, not all segments with bull trout critical habitat were determined to be rare or exemplary habitat when compared to other rivers in the region of comparison, and were therefore not identified as having outstandingly remarkable values. My review of the planning record and final EIS indicates that those segments with rare or exemplary habitat, in contrast, were identified as having outstandingly remarkable values.

Conclusion

I find the Forest appropriately applied the handbook criteria to establish outstandingly remarkable values. Habitat for sensitive, threatened, or endangered species is an important consideration when identifying outstandingly remarkable values; however, the mere presence of these species' habitat alone does not constitute an outstandingly remarkable value. My review indicates Forest Supervisor Weber appropriately evaluated species and habitat presence in consideration of the other rivers in the region of comparison.

Issue Summary – Wilderness Evaluation Process

Objectors contend the Forest did not apply the criteria for wilderness evaluation correctly.

Objectors

Flathead Snowmobile Association, Alliance for the Wild Rockies

Objector's Proposed Remedy

One objector suggested the proposed plan could be improved by removing the proposed wilderness areas in the North Fork area because the Tuchuck and Whale Creek areas were recently "logged to the vertical" and visually do not meet the criteria of a wilderness area.

Background

FSH 1909.12, chapter 70 outlines the wilderness recommendation process. The process occurs in four primary steps: inventory, evaluation, analysis, and recommendation. Each step requires documentation and public participation. The required documentation must be made available to the public as required by 70.61 of this Handbook, and should be consolidated in an appendix to the applicable NEPA documents.

All plan revisions or new plans must complete this process before the responsible official determines, in the plan decision document, whether to recommend lands within the plan area to Congress for wilderness designation (36 CFR 219.7 (c)(2)(v)).

Response

Two objectors assert that in the wilderness evaluation process criteria were not used properly. One alleges the visual condition for the North Fork Geographic Area (namely the Tuchuck and Whale Creek wilderness inventory areas) does not meet wilderness criteria.

Appendix 4 of the final EIS describes the wilderness recommendation process, which includes the inventory, evaluation, analysis, and recommendation by alternative. The process included engaging the public, tribes, other local governments, and State and Federal government agencies throughout this process. Comment was received through individual worksheets, an online interactive Talking Points Collaborative Mapping web tool, a collaborative stakeholder engagement process, interagency working group meetings, tribal government-to-government consultation, and comments on the draft EIS (FEIS, appendix 4, p. 4-1).

The noticeable visual effects of past timber harvest is noted in the discussion of the Tuchuck (FEIS, appendix 4, pp. 4-141 and 4-142) and Whale (FEIS, appendix 4, pp. 4-147 and 4-148) wilderness

inventory areas. As a result, the Tuchuck-Whale recommended wilderness area boundary excludes areas that were previously harvested up to the Whitefish divide (FEIS, appendix 4, p. 4-172). The remaining extent of past timber harvest within the boundary of the Tuchuck-Whale recommended wilderness area was determined not to be substantially noticeable (FEIS, appendix 8, p. 8-266). This resulted in 78 and 72 percent of Tuchuck and Whale wilderness inventory areas being recommended for wilderness (draft ROD page 21). I understand that not everyone agrees. However, after listening to the dialogue at the resolution meeting, visiting with Forest personnel, and reviewing the record, I found there is agreement among various groups and individuals to recommend the Tuchuck-Whale area for wilderness designation.

Unfortunately, the second objector doesn't specify which criteria were misapplied, but alleges the Forest Service fails to consider the wide body of research revealing that counties adjacent to wilderness areas and national parks show better economic sustainability than counties heavily reliant upon resource extraction. However, review of the final EIS shows this was carefully considered. The final EIS discloses that wilderness areas generate significant social and economic well-being by providing world-class recreational settings. It indicates "visitors from near and far may benefit from experiencing solitude in these pristine locations while contributing to the regional economy (i.e., the travel- and tourism-related sectors) in terms of jobs, income, and other economic activities" (FEIS, section 3.27.1).

Conclusion

I find that the wilderness recommendation process, as outlined in appendix 4, complies with the 2012 planning rule. Per the objector's specific concerns in the North Fork Geographic Area, the harvest areas that were substantially noticeable in both the Tuchuck and Whale wilderness inventory areas were excluded from the Tuchuck-Whale recommended wilderness area.

Issue Summary – Amount and Location of Recommended Wilderness

Objections to the areas recommended for inclusion in the National Wilderness Preservation System reflected a full spectrum of positions requesting more or less recommended areas or boundary adjustments to specific areas.

Objectors

Doug Norman, Steve Windbigler, and Flathead Snowmobile Association, Sarah Stewart, Jan and Peter Metzmaker, Mary Via, Swan View Coalition, Headwaters Montana, John Larson, Montana Wilderness Association, The Wilderness Society, Citizens for Balanced Use, Pam Willison, Sheri Burden, Marilyn Wolff, Jerry O'Neil, Susan Foster, Norma Linsky, Michele Dieterich, North Fork Preservation Association, Steve Gniadek, Joel Vignere, Anne Dahl, Margaret Davies, Bret Luedke, Jeff Lonn, Caroline Hill, Edd Blackler, Keith Blaylock, Kari Gunderson, Alan Gratch, Chris Gotschalk, Peter and Caroline Guynn, Capital Trail Vehicle Association, Francesca Droll, Brent Morrow, Guido Niederoest, Doug Ferrell, Lee Boman

Objectors' Proposed Remedies

There were several remedies provided by objectors identifying specific areas to add or remove from the recommendation made in the draft record of decision. Some included:

- Remedies to add areas included Bunker Creek, upper Sullivan Creek, and Jewel Basin (increase the size) although other areas were also indicated. Some objectors indicated all inventoried roadless areas and/or all lands in the wilderness inventory should be recommended.
- Remedies to reduce recommended wilderness included not expanding the Slippery Bill Puzzle Area and removing proposed wilderness in the North Fork area.
- Additional remedies suggested boundary changes to eliminate corridors created to accommodate mechanized transport or motorized trail use.

- One remedy proposed analyzing an alternative that would increase motorized access for the elderly, disabled, handicapped, and physically challenged.
- Another remedy indicated the final ROD should include new post-fire information in the Bunker-Alcove areas. Since the old bridge no longer exists, they indicate the recommended wilderness boundary should be adjusted to include the forks of Bunker for enhanced security and watershed protection.

Background

The 2012 planning rule (36 CFR 219.7) requires national forests to identify and evaluate lands that may be suitable for inclusion in the National Wilderness Preservation System and determine whether to recommend any such lands for Congress to consider for wilderness designation.

Response

The question of which areas, if any, to recommend for wilderness designation generated the greatest number of comments during this plan revision effort. I recognize this is a very complex and passionate subject for many and I respect that everyone holds different values for wilderness, and what they perceive it does or does not provide.

I want to thank the objectors that participated in the resolution meeting for sharing their perspectives with me, and each other. We had diverse viewpoints at the table, but the conversation was respectful. I also want to express my appreciation for the objections we received that applauded the Forest's efforts in this process. I agree that Forest Supervisor Weber and his staff did a tremendous job engaging with local governments, the Tribe, interested groups and individuals, and the Whitefish Range Partnership. Although not everyone agrees, I appreciate participants acknowledging the work to get here. I too, commend the Forest's extensive and responsive public engagement efforts. And I commend all members of the public, and our partner Tribe, State, and County governments for your involvement and willingness to stay engaged. It is truly a collective effort and process.

As evidenced in the public participation during the revision effort, the objections, and at the resolution meeting, public opinion regarding wilderness recommendation varies widely. I recognize some objectors and interested persons hold high value for special places on the Forest like Bunker and Sullivan Creek, and that recommended wilderness is their preferred management strategy to protect wildlife habitat and aquatic resources. But I also recognize there are other objectors and interested persons who do not support recommendation of additional areas, contending the forest has enough land area allocated for this management. They are concerned about the loss of opportunities such as backcountry mechanized transport or motorized recreation, and the ability to manage timber.

As I consider objectors' advocacy for additional areas of recommended wilderness for ecological value reasons, I must also consider the amount of wilderness the Forest currently provides, the area that is recommended in the draft ROD, and the amount of area allocated to backcountry management. The record indicates much of the wilderness inventory that was not recommended is within inventory roadless areas. Most of the inventoried roadless areas are allocated to one of the backcountry management areas (management areas 5a-d). These areas are expected to have low levels of human disturbance and are characterized by an environment influenced primarily by natural ecological processes. Although there will be some motorized recreation activity and limited vegetation management, the analysis demonstrates that the management of these areas would protect headwater habitats, contribute to high water quality on the Forest (section 3.2.8), and contribute to high levels of habitat security for grizzly bears and other wildlife (sections 3.7.4 and 3.7.5).

As I consider others' advocacy for *not* recommending any areas, I must also consider the considerable collaborative engagement that informed the careful thought Forest Supervisor Weber has given to weighing the allocation of various multiple uses across the 2 million-plus-acre Forest. I find he has been

responsive to public comments in the areas recommended across the alternatives, through boundary adjustments to accommodate existing recreation uses, by identifying new areas for snowmobile use, and allocating new areas of the forest for focused recreation management.

There were some objections to boundary adjustments that left a corridor in one of the recommended areas (which accommodates motorized use of tools (e.g., chainsaws) and mechanized transport); however per my review of the overall areas Forest Supervisor Weber has recommended, I find that his decision is responsive to public input from those who want to see more wilderness on the forest and those who do not, while considering the overall management allocations on the Forest.

Two objectors assert the loss of a bridge in the Bunker Creek area in 2015 is new information that should require an adjustment to the wilderness inventory boundary, and thus an adjustment to the Alcove-Bunker recommended wilderness area. However, the bridge was only one factor that informed the inventory identification. When objectors expressed concern with the inventory boundary for this area in 2014, the forest provided the following response:

A portion of the Bunker Creek area was excluded from the wilderness inventory because of the noticeable improvement of a bridge **as well as other substantially noticeable regeneration units on either side of the road to the east of the bridge** (emphasis added here) (FEIS, p. 4-13).

Although my review indicates the presence of a bridge was only one factor Forest Supervisor Weber considered to inform his decision, I am instructing Forest Supervisor Weber to review this changed condition and determine whether the changed circumstance requires reassessment of the wilderness inventory or re-evaluation of the wilderness characteristics of the area per FSH 1909.15 chapter 18.1.

At the resolution meeting, an objector asked why the draft ROD eliminated portions of the inventory that may have been recommended in one or more alternatives. There was an expectation that the rationale for recommendation or non-recommendation should be included with the evaluation of the wilderness characteristics of each area. As indicated in the preceding response (*Issue Summary – Wilderness Evaluation Process*), I found that the Forest properly followed each step of the process for identifying and evaluating lands that may be suitable for recommendation as outlined in chapter 70 of the FSH 1909.12, but will provide further clarification here for this issue as I appreciate the question.

The wilderness recommendation process occurs in four primary steps: inventory, evaluation, analysis, and recommendation (FSH 1909.12, chapter 70). As explained in the final EIS (section 2.4.6), the wilderness *inventory* (step 1) was based on a very broad process that did not discuss the actual wilderness characteristics of the lands. During *evaluation* (step 2), it was determined that not all acres within the inventory have wilderness characteristics. As described in the Forest Service Handbook, not all lands included in the inventory and subsequent evaluations are required to be carried forward in an alternative for *analysis* (step 3). The analysis in the final EIS reviews a broad range of recommended wilderness from 0 acres in alternative D to over 500,000 acres in alternative C. The reasons for excluding evaluated areas, or portions thereof, from further analysis as recommended wilderness in one or more alternatives of the final EIS is documented in appendix 4 of the final EIS on pages 4-158, 4-175, 4-207.

The evaluation discussion in appendix 4 appropriately “describes and documents the wilderness character associated with each area” (FSH 1909.12 chapter 72), as a stand-alone assessment separate from whether or not an area was recommended in one or more alternatives for analysis. Per the objector’s question, it would not be appropriate for the documentation in the wilderness evaluation to provide rationale for the final recommendation in the ROD. The evaluation is designed to inform the final recommendation decision, but that *recommendation* (step 4) is not made until the *analysis* (step 3) is complete.

It’s important to remember that the *evaluation* of the wilderness characteristics of an area does not lead to a formulaic, stand-alone calculation of which areas may be or may not be recommended in the ROD. Rather, Forest Supervisor Weber must consider the evaluation information together with the management

effects of the alternative recommendations on all forest resources (e.g. FEIS, sections 3.2.8, 3.2.9, 3.2.10, 3.3.10, 3.8.3, 3.10.3, 3.12.3, 3.21.2, 3.24.3, 3.27.4; appendix 4, pp. 4-158 through 4-218) and the broad considerations of public input as he seeks to identify the best mix of multiple uses across the Forest.

Forest Supervisor Weber carefully considered a range of recommended wilderness areas, as well as other allocations, to determine the mix of land and resource uses that would best meet public needs. The areas recommended in this decision are an appropriate distribution for the Forest in consideration of the wilderness evaluation for each area, alternative analyses, and public comments. As required by FSH 1909.12, chapter 70, the record of decision describes the rationale for areas chosen for recommendation and identifies how all the areas in the inventory are being managed under the plan.

Lastly, I want to address a concern discussed at the resolution meeting regarding management of “buffers” around designated or recommended wilderness. An objector expressed a concern that if the revised plan recommends additional wilderness areas, the revised plan will then require road closures in areas adjacent to create a “buffer zone”. Although the evaluation in appendix 4 describes how landform and vegetation may functionally “buffer” sights and sounds related to the opportunity for solitude, the revised plan does not include management direction for buffer strips of undeveloped lands. This is consistent with Forest Service policy at FSM 2320.3(5) that directs land management units to “not maintain buffer strips of undeveloped wildland to provide an informal extension of wilderness.”

When I review the revised plan, I find some designated or recommended wilderness areas in the revised plan are adjacent to management area allocations that allow for timber harvest or motorized recreation. Other designated or recommended wilderness areas are adjacent to inventoried roadless areas or grizzly bear core habitat, so timber harvest and motorized access may be limited based on revised plan direction to protect those resources. However, there are no management allocations with plan components, other than designated or recommended wilderness areas, that would prohibit activities based on their potential effects to wilderness character or wilderness characteristics in order to serve as a buffer zone.

Conclusion

After carefully considering the objection letters, the discussions at the resolution meeting and the planning record, other than the Bunker Creek fire area, I have not found any information that would indicate to me Forest Supervisor Weber should reconsider his recommendations. While the objectors may not agree with the areas recommended, his decision falls within his discretion to accommodate competing resources and uses across the Forest. As indicated in the draft ROD, the planning record demonstrates the recommended areas have the social and ecological characteristics that warrant their consideration for inclusion in the National Wilderness Preservation System. They represent high quality areas on the Forest while minimizing the effects to those concerned with the inherent tradeoffs (draft ROD pp. 18-19).

I find that the Forest appropriately followed and documented the wilderness evaluation process as outlined in the 2012 planning rule (FEIS, section 3.15.1 and appendix 4), was responsive to public comment in the range of alternatives and boundary adjustments, and that the decision is within his discretion to balance the multiple use management of the Forest. In addition, Forest Supervisor Weber appropriately analyzed a broad range of alternatives, one of which did not recommend any additional wilderness on the Forest per public comment for increased management opportunities, including motorized recreation and access.

However, given the loss of the bridge in the Bunker Creek area after the inventory step was completed, I’m instructing Forest Supervisor Weber to review the record and determine whether this changed circumstance requires reassessment of the wilderness inventory or re-evaluation of the wilderness characteristics of this specific area. If not, provide clarification of the factors considered in the planning record and final ROD.

Issue Summary – Management of Recommended Wilderness

Objections to the recommended wilderness management direction spanned the full spectrum of positions from removing the suitability component so mechanized transport and motorized uses would be allowed, to adding a standard with the suitability component to prohibit those uses.

Objectors

Montana Wilderness Association, The Wilderness Society, Flathead Snowmobile Association, Flathead Area Mountain Bikers, Jerry O’Neil, Headwaters Montana, Citizens for Balanced Use, Winter Wildlands Alliance, International Mountain Bicycling Association, Capital Trail Vehicle Association, Caroline Hill

Objectors’ Proposed Remedies

“Delete all categorical exclusions of mechanical transport in recommended wilderness, as that term pertains to non-motorized bicycles, from the Forest Plan. Considerations of bicycle use in recommended wilderness should be undertaken on a case by case basis, and should follow the management hierarchy set forth in FSH 1909.12, chapter 74.”

“The Final ROD should adopt unambiguous standards using the Kootenai National Forest language (“MA-1b-STD-AR-01: Motorized vehicle use is not allowed” and “MA-1b-STD-AR-02: Mechanized use is not allowed (e.g. mountain bikes and other wheeled equipment)).”

“The final ROD should include an objective to ensure that the suitability plan component regarding mechanized and motorized use is implemented within a 2-year timeframe.”

“In the final record of decision, state that the Forest is committed to initiating site-specific winter travel planning within the areas deemed suitable for motorized over-snow vehicle use in the forest plan, including the programmatic decisions made in amendment 24, within one year of the completion of the forest plan.”

Background

The 2012 planning rule at 36 CFR 219.10(b)(iv) requires a plan “include plan components, including standards or guidelines, to provide for... management of areas recommended for wilderness designation to protect and maintain the ecological and social characteristics that provide the basis for their suitability for wilderness designation”.

When developing plan components for recommended wilderness areas, the responsible official has discretion to implement a range of management options. All plan components applicable to a recommended area must protect and maintain the social and ecological characteristics that provide the basis for wilderness recommendation. In addition, the plan may include one or more plan components for a recommended wilderness area that:

1. Enhance the ecological and social characteristics that provide the basis for wilderness designations;
2. Continue existing uses, only if such uses do not prevent the protection and maintenance of the social and ecological characteristics that provide the basis for wilderness designation;
3. Alter existing uses, subject to valid existing rights; or
4. Eliminate existing uses, except those uses subject to valid existing rights (FSH 1909.12 chapter 74.1).

The planning rule directs that “specific lands within a plan area will be identified as suitable for various multiple uses or activities based on the desired conditions applicable to those lands. The plan will also

identify lands within the plan area as not suitable for uses that are not compatible with desired conditions for those lands. The suitability of lands need not be identified for every use or activity. Suitability identifications may be made after consideration of historic uses and of issues that have arisen in the planning process” (36 CFR 219.7).

The identification of suitability or unsuitability of lands is based on the desired condition for those lands and the inherent capability of the land to support the use. In addition to standards and guidelines, the revised plan constrains activities that may preclude achievement of recommended wilderness area desired conditions using “suitability” plan components, such as MA1b-SUIT-06 that states, “mechanized transport and motorized use are not suitable in recommended wilderness areas” (revised plan, p. 91).

A plan is direction for the Forest Service, not the public; therefore, the plan alone cannot prohibit public uses such as biking or snowmobile use. Any constraint on the public’s use of National Forest System lands, not otherwise imposed by law or regulation, requires the responsible official to issue an order under 36 CFR part 261, Subpart B. Where a plan identifies an area as not suitable for an activity such as mechanized transport (e.g., mountain biking), the plan has no immediate effect on the public (FSH 1909.12 chapter 21.8).

Using mountain bikes and the revised plan’s MA1b-SUIT-06 as an example, people may still ride their mountain bikes in management area 1b upon approval of the plan, which is a programmatic decision guiding future project and activity decision making. The responsible official cannot issue a closure order that would prohibit mountain biking in management area 1b until the appropriate level of NEPA analysis has been conducted to support that site-specific decision.

Response

Some objectors requested that bicycle use (mechanized transport) be allowed in recommended wilderness, along with chainsaws (motorized equipment) for the development and maintenance of trails, as long as these uses do not preclude wilderness designation.

The areas recommended as additions to the National Wilderness Preservation System are allocated to management area 1b. This management area has plan direction in the form of desired conditions, standards, guidelines, and suitability to “provide for...management of areas recommended for wilderness designation to protect and maintain the ecological and social characteristics that provide the basis for their suitability for wilderness designation” as required at 36 CFR 219.10(b)(iv).

The suitability component MA1b-SUIT-06 indicates, “Mechanized transport and motorized use are not suitable in recommended wilderness areas” as a constraint on these uses to help achieve desired condition MA1b-DC-1 that states, “Recommended wilderness areas preserve opportunities for inclusion in the National Wilderness Preservation System. The Forest maintains and protects the ecological and social characteristics that provide the basis for wilderness recommendation” (revised plan, p. 9).

As one of the key issues identified from the public scoping comments, the draft EIS analyzed a range of alternatives for managing mechanized transport and motorized use in recommended areas. Alternative C included the suitability component MA1b-SUIT-06 and alternative B did not. The intent of varying the direction was to assess how this plan component would help the Forest achieve the desired conditions for recommended wilderness. After considering the analysis and the public comment on the draft EIS, Forest Supervisor Weber found the MA1b-SUIT-06 component analyzed in alternative C was the appropriate first step in ensuring the protection and maintenance of the areas he decided to recommend in the draft decision (draft ROD p. 19). Therefore, he modified alternative B to include MA1b-SUIT-06.

The intent of suitability component MA1b-SUIT-06 is to not establish or authorize continued uses that would affect the wilderness characteristics of these areas over time (draft ROD pp. 18-19). By deliberate design, the areas being recommended for wilderness in alternative B modified do not currently have

significant mechanized transport use occurring. Per public comment on the draft EIS, boundary adjustments were made in the final EIS to remove areas from recommended wilderness that currently allow mechanized transport and over-snow motorized vehicle use (FEIS, pp. 27-28). As there is some over-snow motor vehicle use allowed in one recommended wilderness area (Slippery Bill-Puzzle) (FEIS, section 3.15.3; appendix 8, p. 8-261), Forest Supervisor Weber has endeavored to accommodate this desired recreation opportunity by changing the desired recreation opportunity spectrum in another area of the forest for potential site-specific designation of additional snowmobile areas². With these changes between draft and final EIS, the decision maker found that the eight areas recommended represent high-quality areas on the Forest capable of maintaining their unique social and ecological characteristics, while considering the tradeoffs regarding public desires for other uses of the land.

At the resolution meeting, some expressed a concern regarding an “unwritten rule” in the Northern Region that precluded Forest Supervisor Weber from exercising his discretion to choose the appropriate management of recommended wilderness on the Forest. Although previous Northern Region staff drafted guidance for management of recommended wilderness during land management planning, this was prior to the 2012 planning rule and associated implementing directives. I would like to assure objectors and interested parties that I allowed and encouraged Forest Supervisor Weber the discretion to determine management direction for the Forest per the forest-specific conditions, public engagement, law, regulation, policy, and the direction in FSH 1909.12, chapter 70. As a result, per the discretion described in the Agency’s direction at FSH 1909.12 chapter 74.1, option 2, Forest Supervisor Weber did analyze allowing existing uses to continue (DEIS, p. 26). However, as indicated in the draft ROD, he found the best strategy to protect the wilderness characteristics was to eliminate existing uses per chapter 74.1, option 4. (See the background information above for a citation of this section.)

As to the objector’s concern regarding the need for a standard *in addition* to a suitability plan component to prohibit mechanized transport and motorized use in recommended wilderness areas, if a plan identifies certain lands as not suitable for a use, then that use or activity may not be authorized (36 CFR 219.15 and FSH 1909.12 chapter 22.15). A plan is direction for the Forest Service and suitability plan components are an appropriate component to use when a plan is guiding what activities a forest can or cannot authorize the public to do.

Although objectors pointed to a standard in the 2015 Kootenai National Forest Plan as an example of where the Forest Service has used standards to prohibit mechanized transport and motorized use, the 2015 Kootenai National Forest Plan was developed under prior planning regulations. Those regulations did not define suitability plan components, so they used standards to achieve a similar purpose as the Forest’s suitability plan components. I concur with Forest Supervisor Weber’s determination that this suitability component, together with the suite of desired conditions, standards, and guidelines will meet the obligations under the rule to protect and maintain the ecological and social characteristics that provide the basis for their recommendation to be considered for wilderness designation.

Furthermore, to ensure consistent use of plan components throughout the revised plan, I’m instructing Forest Supervisor Weber to change standard MA1b-STD-02, specific to the Jewel Basin Hiking Area, to a suitability component. This provides for consistent use of suitability plan components to address public authorizations, while achieving the same effect as the standard. This is consistent with the existing order prohibiting these uses to achieve the desired conditions for the Jewel Basin Hiking Area.

² Note: As indicated in the FEIS, ROD, and other portions of this response, the programmatic plan direction will not result in immediate changes to public authorizations for mechanized transport or motorized use. See also the background information and FSH 1909.12, chapter 21.8.

It is important to note, that as indicated in the background information above, the suitability plan component is guidance at the plan level for the Forest Service for how to manage these areas. Where existing uses are not currently compatible with this programmatic direction, a site-specific decision is required to implement a prohibition on mechanized transport and motorized uses in recommended wilderness areas. One of the reasons the Forest Service follows this two-tiered planning framework is to address objectors and interested parties' interest in collaboratively addressing "trail by trail user-conflict issues". The intent of a forest plan level decision is to provide a broad framework guiding decisions and strive for an appropriate mix of multiple uses for the Forest. Management direction will foreclose opportunities in some areas, and open opportunities in others. However, the actual authorization or prohibition of uses takes place at a more detailed project-specific level, consistent with the plan, to ensure the appropriate considerations of effects to recreation users and the relevant resources.

An additional aspect of this objection issue for some is a need for greater specificity and clarity about when the site-specific prohibitions per the revised plan suitability components would be implemented. Some objectors allege the plan and decision don't comply with Forest Service handbook direction because they interpret FSH 1909.12, chapter 21.8 as saying "identification of existing uses as not suitable **must** be coupled with establishment of "an objective in the plan to have such uses controlled in a specified time"". However, when describing the two options for dealing with public uses that are preventing attainment of the desired conditions, FSH 1909.12 indicates: "The responsible official **may** identify lands in which the use is occurring as not suitable for such use and establish an objective in the plan to have such uses controlled in a specified time." [Emphasis added here for both quotes.] Although an objective is an optional plan component that could be used, there is nothing in the regulations or handbook that requires it.

However, I appreciate objectors' concern for addressing the site-specific planning per the revised plan's suitability components in a timely manner. I value the commitment many of the objectors and interested parties made to engage in the development of the plan and its suitability components, and their indication they are willing to continue to work with the forest and each other around some of these ongoing planning needs. Therefore, I'm instructing the Forest to identify a strategy for initiating the NEPA procedures for site-specific planning per the revised plan's suitability direction in the final ROD. To complete this planning in an efficient manner, I am encouraging Forest Supervisor Weber to use his discretion to narrow this project planning per the specific areas and locations where an existing order may need to be changed (e.g., changes to snowmobile use per the current OSV MVUM) or where an order may need to be issued (e.g., to prohibit mechanized transport).

Conclusion

I find the Forest complied with the 2012 planning rule and handbook direction for management of recommended wilderness. Forest Supervisor Weber, at his discretion, was responsive to public input and analyzed a range of management options for mechanized and motorized use in recommended wilderness in the draft EIS. Also within his discretion, he chose the management direction he found best to protect and maintain the ecological and social characteristics that provide the basis for the suitability of the areas he recommended, modifying boundaries where possible to accommodate existing recreation uses. (See also my response to the previous objection issue, *Amount and Location of Recommended Wilderness*.)

However, as indicated above I am providing Forest Supervisor Weber several instructions: 1) clarify in the final EIS the effects that led to the modification of alternative B to add the suitability plan component, MA1b-SUIT-06; 2) shift MA1b-STD-02 from a standard to a suitability component; and 3) identify a strategy in the final ROD for initiating site-specific planning per the changes in suitability for mechanized transport and motorized use in the revised plan direction.

Issue Summary – Management of Inventoried Roadless Areas

Objectors claim the revised plan does not provide sufficient direction to manage roadless areas on the Forest to maintain their wilderness character.

Objector

Alliance for the Wild Rockies

Objector's Proposed Remedy

“All roadless areas should be protected as recommended wilderness areas.”

Background

Agency directives in Forest Service Handbook 1909.12 chapter 70 outline the wilderness inventory process (inventory, evaluation, analysis, and recommendation). Chapter 20 states that a forest plan must identify Inventoried Roadless Areas. Roadless areas designated may be, but are not required to be, identified as unique management areas. The plan can have different plan components in multiple management areas or geographic areas apply to the inventoried roadless areas as long as these plan components are compatible with the restrictions of the applicable roadless rule.

The 2001 Roadless Area Conservation Rule (roadless rule) establishes prohibitions on road construction and road reconstruction and limitations on timber cutting, sale, or removal within inventoried roadless areas on National Forest System lands. The intent of the 2001 Roadless Rule is to provide lasting protection of inventoried roadless areas within the National Forest System in the context of multiple-use management. Generally small diameter timber may be cut, sold, or removed in inventoried roadless areas where it maintains one or more of the roadless area characteristics as defined in 36 CFR 294.11.

Response

One objector contends the plan fails to minimize impacts to inventoried roadless areas because it authorizes motorized access into [some] of roadless areas and thereby harms their wilderness characteristics. Their conclusion is similar to the other objector who states the forest plan does not maintain the wilderness character of roadless areas.

However, the 2012 planning rule does not require plan direction to maintain wilderness character of all inventoried roadless areas. The 2012 planning rule only requires plan components to protect and maintain the social and ecological characteristics that provide the basis for wilderness recommendation for the inventoried roadless areas that are recommended for wilderness.

The roadless rule also does not require the plan maintain the wilderness character of inventoried roadless areas. The preamble to the roadless rule specifically indicates that while inventoried roadless areas may have many wilderness-like attributes, unlike wilderness the use of mountain bikes, and other mechanized means of travel is not prohibited. The preamble indicates a potential benefit of the roadless rule was to provide a remote recreation experience without the activity restrictions of wilderness (for example, off-highway vehicle use and mountain biking) and that this was expected to lessen visitation pressure on wilderness. In addition, the preamble explicitly states that “The Roadless Area Conservation rule, unlike the establishment of wilderness areas, will allow a multitude of activities including motorized uses, grazing, and oil and gas development that does not require new roads to continue in inventoried roadless areas” (USDA, 2011).

Accordingly, the final EIS in section 3.16 discloses inventoried roadless areas not recommended for wilderness might have a variety of motorized or mechanized transport opportunities depending on the management area allocation and the desired recreation opportunity spectrum. Where suitable, timber harvest would be done for purposes that would result in retaining natural integrity of the ecosystem.

However, site-specific analysis prior to project implementation would assess consistency with the revised plan and roadless rule.

Conclusion

I find that the management direction in the revised plan that applies to inventoried roadless areas is compliant with the 2001 Roadless Area Conservation Rule.

Wildlife

The wildlife objection issues are numerous and complex. The following objections pertaining to wildlife (other than grizzly bears) are grouped into four main issues: persistence of native species, connectivity, Canada lynx, wolverine, and elk security. All of these objections tie to a concern for maintaining the diversity of native species present on the Forest.

Several objectors took issue with a lack of “enforceable standards” and viewed other plan components like desired conditions “aspirational” or “discretionary”. Please see my response at *Issue Summary – Plan Component Sufficiency* for this objection issue.

Objections regarding the identification of species of conservation concern for the Flathead National Forest were reviewed by Chris French, Reviewing Officer for the Chief of the Forest Service. I received his response on July 11, 2018 with instructions to review the documentation for several species (see enclosure 2). If that review indicates a species should be added to the list of species of conservation concern, Forest Supervisor Weber will assess the existing plan components to determine whether any changes are warranted, and amend the plan accordingly, if needed.

Issue Summary – Persistence of Native Species

The objector claims that the revised plan does not provide ecological conditions necessary to maintain a viable population of each native species, including those formerly classified as sensitive by the regional forester. They also claim that the analysis in the final EIS is inadequate to demonstrate that viability would be maintained, and that removal of protections for the regional forester’s sensitive species would have adverse effects that were not disclosed.

Objectors

Alliance for the Wild Rockies, Defenders of Wildlife

Objector’s Proposed Remedy

One objector suggested, “Develop plan direction that ensures that until NRV is achieved, all large, old ponderosa pine trees and snags must be protected from logging.”

The other suggested a broad remand of the revised plan per their objection issues.

Background

Under the 2012 planning rule, a forest plan must contain components to maintain or restore ecosystem integrity and ecosystem diversity. Ecosystem integrity is maintained if the dominant ecological characteristics remain within the natural range of variation, thus providing ecological conditions that support native species that have evolved under those conditions.

The planning rule outlines an approach for maintaining ecosystem integrity using a combination of coarse-filter (ecosystem-level) and fine-filter (species-specific) plan components (36 CFR 219.9). The coarse-filter components ensure that the broad habitat types and characteristics that support the majority

of native species are maintained. The responsible official can add fine-filter plan components when additional direction is needed to ensure the long-term persistence of a specific species.

As stated in the Federal Register (volume 77, number 68, p. 21212): “The premise behind the coarse-filter approach is that native species evolved and adapted within the limits established by natural landforms, vegetation, and disturbance patterns prior to extensive human alteration. Maintaining or restoring ecological conditions similar to those under which native species have evolved therefore offers the best assurance against losses of biological diversity and maintains habitats for the vast majority of species in an area, subject to factors outside of the Agency’s control, such as climate change. The final rule recognizes the importance of maintaining the biological diversity of each national forest and grassland, and the integrity of the compositional, structural, and functional components comprising the ecosystems on each NFS unit. The coarse-filter requirements of the rule are set out as requirements to develop plan components designed to maintain or restore ecological conditions for ecosystem integrity and ecosystem diversity in the plan area. Based upon the current science of conservation biology, by working toward the goals of ecosystem integrity and ecosystem diversity with connected habitats that can absorb disturbance, the Department expects that over time, management would maintain and restore ecological conditions which provide for diversity of plant and animal communities and support the abundance, distribution, and long-term persistence of native species. These ecological conditions should be sufficient to sustain viable populations of native plant and animal species considered to be common or secure within the plan area. These coarse-filter requirements are also expected to support the persistence of many species currently considered imperiled or vulnerable across their ranges or within the plan area.”

Response

The forest took a coarse-filter and fine-filter approach to provide ecosystem integrity, as required by the planning rule. As the planning rule programmatic EIS disclosed, under these provisions of the planning rule, National Forest System lands are expected to more consistently provide the ecological conditions necessary to maintain the diversity of plant and animal communities and the persistence of native species.

For the revised plan, ecosystem (coarse-filter) plan components were evaluated to determine whether they would be sufficient to sustain viable populations of native plant and animal species, and species-specific plan components were included in the revised plan where needed. In response to public comments, appendix 6 in the final EIS lists plan components for key ecosystems and ecosystem characteristics, and appendix 7 lists plan components related to climate change adaptation strategies.

The revised plan and coarse-filter analysis addressed key ecosystem characteristics, including composition, structure, function, and connectivity. The coarse-filter plan components provide for the needs of most species. The final EIS includes analysis of the natural range of variation for ecosystems and numerous wildlife species (FEIS, appendices 2 and 3), including but not limited to those currently identified as regional forester sensitive species for the Forest. The species-specific analyses considered human alterations to the environment, such as roads and motorized over-snow vehicle use. Plan components placing limits on human alterations of the environment were included as needed to conserve at-risk wildlife species (including endangered, threatened, proposed, candidate, and species of conservation concern). The final EIS and biological evaluation (Kuennen, 2018) demonstrate the revised plan will provide the ecological conditions necessary for those species currently identified as regional forester’s sensitive species.

One objector took issue with the identification of the natural range of variation, which was the foundation for the identification of the vegetation desired conditions (and thus, the coarse filter plan components), contending the data was insufficient to define reference conditions. They also allege the effects of climate change invalidate the desired conditions identified in the revised plan. However, the final EIS and planning record (appendix 2; Henderson, 2017; and Trechsel, 2017a, and 2017b) adequately disclose the

information used to inform the modelling of the natural range of variation including the limitations in the modelling and the consideration of climate change effects.

Another other objector expressed concern about several specific wildlife species, and I would like to briefly highlight some of the plan components designed to support persistence of these species, as well as the associated analysis.

Most of the species over which objectors raised specific concerns are cavity-nesters and require large trees or snags for denning or nesting habitat. These species include fisher, flammulated owl, other owl species, pileated woodpecker, pine marten, and northern goshawk. Coarse-filter plan components designed to provide the necessary habitat conditions for continued persistence of these species include numerous desired conditions for diversity in tree size classes (FW-DC-TE&V-10 & 11), very large trees (FW-DC-TE&V-12), old growth (FW-DC-TE&V-14), snags (FW-DC-TE&V-15), cavities (FW-DC-TE&V-16), and downed wood (FW-DC-TE&V-17). A complementary suite of standards and guidelines are provided to guide the forest towards achieving these desired conditions by ensuring that important habitat elements are protected during management operations. One objector also expressed concern about the boreal toad, another habitat specialist that is well protected by coarse-filter plan components associated with riparian, wetland, and early-successional habitat. These include FW-DC-RMZ-03, FW-DC-RMZ-STD-01, FW-RMZ-GDL-11, FW-DC-TE&V-17, FW-GDL-TE&V-08, and FW-DC-WL DIV-01.

In addition to the coarse-filter plan components described above, fine-filter plan components related to specific species were also included in the forest plan. For example, FW-DC-WL DIV-01 includes a table describing desired conditions for a wide variety of different wildlife species. And although vegetation management plan components such as those for snag retention, coarse woody debris, or riparian habitat don't name specific wildlife species by name, they are fine-filter plan components that contribute to the integrated plan content designed to maintain or restore the ecosystem integrity and diversity of the plan area per 36 CFR 219.9.

As noted above, the final EIS analyzed the ability of the forest plan to provide the conditions necessary for diversity of native species. This included numerous species-specific evaluations (FEIS, section 3.7.4), which detail how specific plan components contribute to the maintenance of key habitat characteristics for at-risk wildlife species and other wildlife species that the public expressed concern about during public engagement. The final EIS also modeled the effects of each of the alternatives on several wildlife species. Results demonstrated that the forest plan would provide conditions that allow for the long-term persistence of black-backed woodpecker, pileated woodpecker, northern goshawk, and marten (FEIS, section 3.7.4). Further details on the modeling methodology and results are provided in appendix 3.

Two species merit an extra mention due to their unique circumstances, fisher, and flammulated owls. I did not identify fisher as a species of conservation concern for the Forest as they are not currently known to occur in the plan area. However, because the species were known to occur in the past (after translocation in 1959 and 1960) and Olson and others (2014) modeled potential habitat, and because the preliminary Northern Region Adaptation Partnership risk assessment (NRAP, 2015) anticipated fisher habitat will shift in the future, plan components were included to address ecosystem characteristics for fisher in those potential habitats. Habitat modeling for the final EIS (section 3.7.4, *Coniferous forest habitat*) showed that the quantity of potential fisher habitat would remain within the historic range of variation under all action alternatives.

I identified flammulated owl as a species of conservation concern for the Forest due to the current downward trend of the limited habitat on the forest, together with an assumed small population size. The 2012 planning rule requires the Forest to include plan components that “provide the ecological conditions necessary to maintain or restore a viable population of a species of conservation concern in the planning area (36 CFR 219.9(b)(1))”, provided that this is “within the inherent capability of the plan area”. The

final EIS describes the best available scientific information on the habitat needs of flammulated owl as well as the extent, distribution, and historic range of variability of that habitat within the forest (FEIS, section 3.7.4, *Coniferous forest habitat*). This information guided the development of plan components, including standards and guidelines, to maintain, improve, and restore ecological conditions within the plan area, including guidelines for retaining large trees and snags as noted in the paragraphs above. While the final EIS analysis concluded that it is likely beyond the authority of the Forest Service and the inherent capability of the plan area to maintain long-term persistence of flammulated owl within the plan area, the plan direction will contribute to maintaining a viable population of the species within its range, as required by the planning rule.

Conclusion

I find the final EIS and planning record provide the analysis to support the determination the plan provides direction to maintain or restore ecological conditions that contribute to the persistence of all native species, as required by the planning rule.

Issue Summary – Connectivity

Objectors contend the forest plan does not adequately maintain or restore habitat connectivity.

Objectors

Alliance for the Wild Rockies, Wild Earth Guardians, Friends of the Wild Swan, Defenders of Wildlife, Brian Peck

Objectors' Proposed Remedies

Objectors proposed several specific remedies aimed at increasing habitat connectivity. Some general examples include:

- Develop an over-arching plan for wildlife to move across the Flathead National Forest, map it, and monitor wildlife usage.
- Include enhanced opportunities to allow for effective connectivity amongst wildlife populations across the Crown of the Continent region.
- Modify and adopt Alternative C to increase the potential for carnivore populations across the Crown of the Continent region to connect.
- Identify and protect (via enforceable standards) corridors, habitat linkage zones, and “least cost paths” that help connect the lynx populations within the Flathead and northern Rockies and lynx populations in the Flathead with populations in Canada. Carefully analyze how the revised plan directly, indirectly, and cumulatively impacts connectivity for lynx.

There are also remedies suggested to change management area allocations in the North Fork, Hungry Horse, Swan Valley, and Salish Mountain Geographic Areas to improve connectivity.

Background

The planning rule states that forest plans must include ecosystem plan components that maintain or restore connectivity, which is one element of ecosystem integrity (36 CFR 219.9).

Response

Multiple objectors advocate for alternative C, because they believe, that as the alternative with the most recommended wilderness, it is the alternative that “most closely abides by the conservation mandates of the Forest Service’s mission” and that it “provides a higher amount of habitat connectivity than any other action alternative”. However, my review of the revised plan provides for connectivity for grizzly bear,

lynx, and other wildlife species at forestwide, within geographic-areas, and across the broader landscape beyond the Flathead National Forest boundary. Table 6-1 in appendix 6 of the final EIS documents plan components specifically related to connectivity. Connectivity of cover is emphasized in riparian management zones, which were mapped to show their interconnectedness on the Forest (appendix 1, map 1-07). Individual geographic areas have a desired condition that references a plan map showing key connectivity areas.

In addition to species-specific connectivity analyses in the final EIS section 3.7.4 and 3.7.5, section 3.7.6 specifically documents how the Forest's planning process took connectivity into account and the science on which the analysis was based. A map showing connectivity areas that are designed to maintain connectivity for wide-ranging species such as grizzly bear, lynx, and wolverine can be found in Figure B-30 of the forest plan.

Conclusion

As with the *Issue Summary – Amount and Location of Recommended Wilderness*, hereto I find Forest Supervisor Weber has appropriately exercised his discretion to provide for multiple use management of the Forest while meeting Forest Service conservation mandates. The revised plan land allocations and plan components will restore or maintain connectivity as required by the 2012 planning rule.

Additional discussions regarding specific species connectivity needs can be found in the sections of this document that discuss Canada lynx, wolverine, elk, grizzly bear, and bull trout.

Issue Summary – Canada Lynx

Numerous specific issues were raised related to the adequacy of the Canada lynx analysis, the use of best available science, and whether or not the revised plan provides the ecological conditions necessary to contribute to the lynx recovery.

Objectors

Alliance for the Wild Rockies, Wild Earth Guardians, Friends of the Wild Swan, Defenders of Wildlife

Objectors' Proposed Remedies

Objectors proposed many potential remedies, which are briefly summarized as follows:

- Revise the Forest Plan to ensure the “recovery” of lynx (not just survival or persistence) and update the lynx direction to reflect the best available science on lynx conservation, including Kosterman (2014).
- There must be a standard that prohibits late season OSV use to prevent natal den disturbance.
- Impose additional restrictions on where snowmobiling is allowed and eliminate late season snowmobiling.
- Take a hard look at the impacts of vegetation management and motorized access on lynx.
- Convert guidelines for managing lynx and lynx critical habitat into enforceable standards.
- Modify Standard VEG S1 to prevent management that would increase habitat in the stand initiation stage to greater than 10-15% per LAU.
- Adopt standards – beyond the outdated lynx direction - to ensure lynx winter habitat on the Flathead is properly managed and conserved.
- Given the present and future impacts of climate change on lynx habitat, the Forest must maximize maintaining and restoring remaining habitat with an aggregate set of plan components that eliminate and limit other stressors.
- The revised plan must include standards that identify, maintain, and restore winter habitat that includes sufficient mature forest in female home ranges (or LAUs), based on the BASI.

- The Forest must remove the [VEG S6] exception or provide additional plan components that provide direction for pre-commercial thinning in order to protect snowshoe hare habitat, based on the BASI (e.g., Griffin and Mills 2007).
- Trapping should be prohibited in lynx designated critical habitat, except for permitted research.
- Monitor how and to what extent forest management is contributing to the recovery of lynx.

Background

Per the 2012 planning rule, the forest plan must “provide the ecological conditions necessary to contribute to the recovery of federally listed threatened and endangered species” (36 CFR 219.9), including Canada lynx.

In March 2000, Canada lynx was listed as a threatened species under the Endangered Species Act (ESA) due to the lack of adequate regulatory mechanisms, specifically the lack of guidance for conservation of lynx and snowshoe hare in Forest Service land management plans and Bureau of Land Management land use plans. Since its approval in March of 2007, however, the Northern Rockies Lynx Management Direction (NRLMD) has provided consistent management direction for lynx habitat on National Forest Service lands.

In 2016, a peer-reviewed species status assessment for the lynx was completed (Bell et al., 2016) to assist recovery planning, classification decisions, and other required determinations. On Nov. 13, 2017, the U.S. Fish and Wildlife Service (USFWS) completed a 5-year review, informed by the species status assessment, that concluded the Canada lynx may no longer warrant protection under the ESA and should be considered for delisting due to recovery (USFWS 2017c). USFWS stated that the habitat management direction put in place by the Forest Service and Bureau of Land Management subsequent to the ESA listing substantially addressed the threats to lynx.

The revised plan retains the NRLMD with two forest-specific modifications. One is a modification to standard VEG S6 to add an exception category aimed at protecting mature whitebark pine trees that are resistant to blister rust. The final EIS analyzes areas where efforts to conserve whitebark pine could occur and the potential effects on lynx and snowshoe hares (FEIS, section 3.7.5, Canada lynx subsection, *Consequences of other vegetation management treatments*) and explains the rationale for this exception (FEIS, section 3.3.10). The other modification is to guideline HU G11 to allow the Forest to change areas identified as suitable for over-snow motorized vehicle use, provided that there is no net increase forestwide.

Response

Canada lynx conservation is a complex issue, and the conversations that I had with objectors and interested parties during the resolution meetings highlighted the fact that there are differing perspectives on how best to promote lynx recovery while also managing for multiple uses on the Forest. At the objection meeting, it became clear that some parties would like additional restrictions on both management and recreation, whereas others felt that the Northern Rockies Lynx Management Direction (NRLMD) has proven sufficient in the years since it was first implemented. I would like to acknowledge these differences and share my appreciation for the resolution meeting participation as I address key points from the objections related to both plan direction and the final EIS analysis.

Several objectors contend the Forest cannot rely on the NRLMD to support recovery of lynx, stating it is “outdated, fails to properly manage (and recruit) lynx winter habitat, and is no longer consistent with the best available science”. Although the revised plan includes management direction from the NRLMD, Forest Supervisor Weber considered new scientific information such as Kosterman (2014), Squires and others (2010), the 2013 Lynx Conservation Assessment and Strategy (ILBT, 2013), and recommendations from the Species Status Assessment team on Canada lynx in the Expert Elicitation Workshop Report. These documents are discussed in detail and cited in the Forest’s biological assessment (USDA, 2017).

It's also important to note that the NRLMD is not stand-alone management direction. Rather it provides a portion of the species-specific (fine filter) plan direction within the revised plan's coarse-filter/fine filter framework. Per the 2012 planning rule, the revised plan includes ecosystem-level plan components that address key ecosystem characteristics, including vegetation composition, structure, function, and connectivity. Some new plan components specifically address lynx such as the desired condition for the cool-moist biophysical setting on p. 39, starting with "In Canada lynx habitat and critical habitat (see figure A-1), a mosaic of successional stages promotes the conservation of the Canada lynx at the lynx analysis unit scale as well as at larger scales."

The final EIS includes extensive analysis of how plan direction will affect lynx and critical habitat, including many details about how specific threats are addressed as well as how various plan components promote lynx recovery. Objection concerns regarding climate change, connectivity, winter recreation, and trapping were explicitly addressed. The ESA section 7 consultation process was conducted in accordance with a consultation agreement for the revised plan, and details on how the revised plan contributes to the recovery of Canada lynx are documented in the biological assessment on pp. 21-22 and 39-48 (Kuennen et al., 2017a) and the biological opinion, pp. IV-83 and IV-94 – IV95 (USFWS, 2017).

In addition to the species-specific analysis in final EIS section 3.7.5, a climate change adaptation strategy is detailed in appendix 7 of the final EIS and management strategies to increase the resilience of forests to climate change and other stressors are described in appendix C of the revised Plan.

One of the objectors alleges the plan fails to properly identify, manage, and recruit for winter lynx habitat. Habitat used by lynx in winter is described in the final EIS, section 3.7.5, Canada lynx, subsection *Affected environment*, and is based on Squires and others (2010). The importance of providing horizontal cover for lynx has been known for some time and was incorporated in NRLMD standards for young (standard VEG S5) as well as for multistory mature forests (standard VEG S6) (see the revised plan, appendix A). Multistory forests with dense understories providing winter hare and lynx habitat are protected by NRLMD standard VEG S6, with specific limited exceptions and exemptions identified and analyzed in the NRLMD's final EIS (USDA, 2007) and in the Forest's revised plan final EIS. As explained in the Forest's biological assessment (Kuennen et al., 2017a) and final EIS, the programmatic framework of the revised plan provides direction to identify, manage, and recruit mature, multistory forest to benefit lynx. The location of existing multistory forest is identified at the project level because the Forest does not have the ability to identify forest with a dense understory at the forestwide scale. For the forest plan, the Forest has analyzed the effects of the vegetation standards and their exceptions in a programmatic way, but additional analysis appropriately occurs at the project level, as required by the NEPA, the NFMA, and the ESA. The amount, distribution, and timing of vegetation management (including timber harvest, salvage logging, and precommercial thinning) goes through consultation for site-specific projects to ensure that lynx habitat (including winter habitat) on the Forest is properly managed and conserved, based upon the best available scientific information, recognizing that conditions change over time. The final EIS discusses limitations on precommercial thinning in post-fire areas and the path forward to address site-specific conditions on the Forest.

Per an objector's contention that the Forest did not provide adequate rational for adding an exception to Standard VEG S6 for noncommercial thinning around mature whitebark pine trees. The final EIS acknowledges the literature cited by objectors regarding the negative effects to snowshoe hare abundance in stands treated with traditional precommercial thinning prescriptions (FEIS, section 3.7.5, *Affected environment—Canada lynx habitat*). However, it also indicates the limited application of this exception, and the other exceptions under VEG S5 and S6, makes it likely that there would be minor or undetectable adverse effects on the lynx population (FEIS, section 3.7.5, *Canada lynx, Consequences common to the action alternatives*). It's important to note that additional consultation and site-specific analysis would occur at the project level to determine site-specific effects on Canada lynx and its habitat. The overall effect of VEG S5 and S6 is to guide limitations on precommercial thinning forestwide to address potential

effects to snowshoe hare consistent with best available scientific information such as Griffin and Mills (2007). This provides an overall benefit for lynx by retaining and developing important winter habitat over much of the Forest (FEIS, section 3.7.5, *Canada lynx, Consequences of other vegetation management treatments* and appendix 8, pp. 8-124 through 8-127).

Over-snow vehicle use is an issue about which objectors were particularly concerned. Under the revised plan, large areas of the forest are not suitable for motorized over-snow vehicles, including over 1 million acres of wilderness and an additional 190,000 acres of recommended wilderness. These areas provide remote, secure areas for lynx. In addition, guideline FW-GDL-REC-03 constrains the amount of motorized over-snow vehicle use on the remainder of the Forest for the purpose “to provide ecological conditions to support Canada lynx”. Although objectors take issue with the use of guidelines rather than standards for some lynx plan components, guidelines are mandatory and only allow departure from their terms if the management actions meet the purpose of the guideline. The analysis demonstrates the guideline for motorized over-snow vehicle use in the remainder of lynx habitat will be sufficient to manage potential impacts to lynx, as documented in the final EIS (section 3.7.5, *Canada lynx, Motorized over-snow vehicle use and winter routes*) and planning record. As cited in the biological assessment (USDA, 2017), the Forest discussed the effects of motorized over-snow vehicle use with John Squires, and he concurred that Kolbe et al. (2007) is the best available scientific information for the area of the Flathead National Forest. Section 3.7.5 of the final EIS, subsection “*Canada lynx*,” discusses existing conditions and effects of alternatives with respect to winter recreation.

One objector indicated the plan should prohibit trapping in critical habitat because incidental trapping is a “possible occurrence on the Forest”. However, the limitations on motorized access in wilderness and recommended wilderness serve to make trapping prohibitively difficult in many areas utilized by lynx, which limits the risk of accidental trapping mortality (FEIS, section 3.7.5, *Canada lynx, Consequences common to the action alternatives*).

See my response above in the *Connectivity* section of this document regarding objection issues related to habitat connectivity.

Several objectors contend that the Forest did not use the best available scientific information with respect to precommercial thinning, such as Bull 2005 or Homyack 2007, or the thesis by Kosterman (2014) that investigated the relationship between vegetation conditions and lynx reproductive success. The final EIS (section 3.7.5, *Canada lynx, Information sources and incomplete or unavailable information*) explains that while the Forest considered Kosterman’s findings in its description of desired conditions, the parameters and metrics that Kosterman used do not directly correlate to Forest Service vegetation inventory data.

As indicated by the final EIS, Kosterman and Rocky Mountain Research Station scientists have been working to refine her lynx habitat classification and publish results in a peer-reviewed scientific journal. Subsequent to publication of the final EIS, several new papers have been published that include additional detail on lynx habitat. I’m instructing Forest Supervisor Weber to review the new science published by Kosterman et al. (2018), Holbrook et al. (Holbrook et al., 2018; Holbrook et al., 2017), and the final Canada lynx species status assessment (USFWS, October 2017) to determine whether any changes in the revised plan are necessary, or whether additional analysis is warranted prior to signing the final ROD.

Kosterman et al. (2018) states “The forest characteristics that defined high reproductive success for Canada lynx include 1) abundant and connected mature forest and 2) intermediate amounts of small diameter regenerating forest”. Desired condition FW-DC-TE&V-19 appears consistent with these findings, and calls for “connectivity of mature forest” as well as “patches of dense, young seedling/sapling forest”. However, this new information needs interdisciplinary review to inform Forest Supervisor Weber’s final decision.

Finally, the monitoring plan contains questions about both lynx and lynx habitat, as suggested by objectors.

Conclusion

I find that the forest has developed a plan that will contribute to Canada lynx recovery while also recognizing desires for vegetation management and winter recreation opportunities on the forest per the Forest Service multiple use mission. Analysis in the final EIS is thorough and considers the best available scientific information. However, there is new information that needs to be reviewed to determine whether changes to the plan are warranted as indicated in the preceding paragraphs. The monitoring program will allow the forest to track how management activities are affecting Canada lynx.

Issue Summary – Wolverine

Objectors contend that the revised plan does not provide ecological conditions necessary to conserve wolverine.

Objectors

Friends of the Wild Swan, Alliance for the Wild Rockies, Defenders of Wildlife, WildEarth Guardians

Objectors' Proposed Remedies

“Designate wolverine as a Species of Conservation Concern.”

“Add plan standards to protect wolverine, including standards to regulate certain types of traps and limit late-season snowmobiling in wolverine habitat.”

“Acquire additional data on the local wolverine population.”

“Develop a monitoring program for wolverine and include them as a focal species.”

Background

The wolverine is currently proposed for listing under the ESA. The 2012 planning rule directs forests to provide the ecological conditions necessary to “conserve proposed and candidate species” (36 CFR 219.9). If the ecosystem plan components (coarse filter) are not sufficient to accomplish this, then additional, species-specific plan components, including standards or guidelines, must be included in the plan to provide such ecological conditions in the plan area.

A species of conservation concern is a species, *other than federally recognized threatened, endangered, proposed, or candidate species*, that is known to occur in the plan area and for which the regional forester has determined that the best available scientific information indicates substantial concern about the species' capability to persist over the long-term in the plan area (36 CFR 219.9(c)) [emphasis added here]. As a federally recognized species (proposed threatened), wolverine cannot be identified as a species of conservation concern.

Response

Several objectors expressed concern about whether or not the revised plan provides adequate protection for wolverine. These concerns were linked to specific threats, including incidental trapping, winter recreation, and climate change. The wolverine analysis in the final EIS (section 3.7.5, pp. 612-624) is extensive and addresses all of these concerns.

The forest plan includes numerous components (including guidelines) designed to provide for the ecological conditions necessary for wolverine conservation and address relevant threats. FW-DC-REC-22 specifically addresses the effects of motorized over-snow vehicle use on maternal denning of wolverines. Motorized over-snow vehicle use is suitable in 11% of modeled denning habitat (FEIS, section 3.7.5, p.

620), and FW-REC-GDL-04 is designed to protect female wolverines with young by limiting expansion of areas suitable for over-snow vehicle use. FW-GDL-WL-04 restricts helicopter flights and landings in modeled denning habitat during the spring. Guideline MA1a-GDL-03 bans motorized and mechanized transport within designated wilderness, which comprises 59-64% of modeled wolverine habitat on the forest (FEIS, section 3.7.5, p. 618). Restrictions on which activities are suitable in designated and recommended wilderness (MA1a-SUIT-01, 02, 03; MA1b-SUIT-02, 04, 05, 06) provide further protections and make access for trapping other species difficult, and thus limits the risk of incidental trapping. Numerous plan components provide for wildlife habitat connectivity (FW-GDL-IFS-12, GA-HH-DC-03, GA-MF-DC-04, GA-NF-DC-06, 07, 08, GA-SM-DC-03, GA-SV-DC-09) and may help mitigate the effects of climate change (FEIS, section 3.7.5 p. 623).

The final EIS analysis evaluates the overall effects of plan direction on wolverine and shows that the plan will support key ecosystem characteristics that contribute to wolverine conservation (FEIS, section 3.7.5, p. 619). The biological assessments and the biological opinions addressed and confirmed that the revised plan meets both the section 7(a)(1) affirmative responsibility to conserve listed species and their habitats and the section 7(a)(2) responsibility to not jeopardize the continued existence of a listed species. If the USFWS decides not to list the wolverine, I will evaluate wolverine following the criteria described in the Forest Service Handbook and Northern Region process documents to determine if wolverine are a species of conservation concern for the Forest. If that evaluation indicates wolverine should be added to the list of species of conservation concern, the Forest Supervisor will assess the existing plan components to determine whether any changes are warranted, and amend the plan accordingly, if needed.

One objector provided a reference to a new report (Heinemeyer et al., 2017) that was published after the final EIS and forest plan were released. Although the final report from Heinemeyer was not available for the final EIS, the Forest guidelines for wolverine are based on Krebs et al. (2007) and Heinemeyer/Squires preliminary research results, which provide similar information. The final report increases the certainty of potential effects from winter recreation, but my review indicates the plan components listed above appear to address disturbance from recreation in denning habitat and are compatible with the findings of the final report. However, this is new information that should be reviewed by the interdisciplinary team to inform Forest Supervisor Weber's decision. I'm instructing Forest Supervisor Weber to have his staff review this new information and make a determination whether additional plan components are warranted.

Several objectors expressed a desire for wolverine to be included in the monitoring plan. However, I find the two questions designed to assess the effect of forest plan implementation on wolverine (MON-WL-14 and MON-WL-17) are sufficient. In addition, the Northern Region is working with stakeholders on development of a broad-scale monitoring strategy for multiple forest carnivores, including wolverine.

Conclusion

The final EIS includes an extensive effects analysis based on the best available scientific information, supporting the conclusion that the plan will conserve wolverine as required under the planning rule. However, Forest Supervisor Weber should review the new Heinemeyer 2017 publication and make a determination whether additional plan components are needed. If no additional plan components or analysis is warranted, make any needed clarification in the FEIS and discuss the new science and the determination in the final ROD.

Issue Summary – Elk Security

Objectors contend the plan direction is inadequate to provide elk security habitat.

Objector

Alliance for the Wild Rockies

Objector's Proposed Remedy

None provided.

Background

The planning rule states that forest plans must provide for the persistence of all native species within the plan area (36 CFR 219.9) and must include plan components “for integrated resource management to provide for ecosystem services and multiple uses in the plan area. When developing plan components for integrated resource management, to the extent relevant to the plan area and the public participation process and the requirements of §§ 219.7, 219.8, 219.9, and 219.11, the responsible official shall consider:

- (5) Habitat conditions, subject to the requirements of § 219.9, for wildlife, fish, and plants commonly enjoyed and used by the public; for hunting, fishing, trapping, gathering, observing, subsistence, and other activities (in collaboration with federally recognized Tribes, Alaska Native Corporations, other Federal agencies, and State and local governments)(36 CFR 219.10(a)).

Response

The revised plan provides both coarse filter and fine filter plan components that provide the ecological conditions to support elk and other big game. The analysis in section 3.7.4 (*Forest ungulates*) of the final EIS indicates that key ecosystem characteristics for ungulate habitat during all seasons would be supported by implementation of plan components for watersheds and riparian management zones as well as vegetation structure, composition, and pattern. Additional geographic area-specific desired conditions also address key winter habitats for forest ungulates. These include GA-HH-DC-02, GA-NF-DC-08, GA-SM-DC-04 and 05, and GA-SV-DC-05. Habitat security during hunting season is provided by grizzly bear secure core plan components and guideline GA-SM-GDL-01.

However, I did note that guideline GA-SM-GDL-01 is written to calculate habitat security based on “roads” open to wheeled motorized use by the public, excluding trails. The analysis indicates the guideline is intended to address motor vehicle access during the hunting season, which could be provided by both roads and trails open to wheeled motorized use. Therefore, I’m instructing Forest Supervisor Weber to modify the terminology in the guideline from “roads” to “routes” to clearly address motor vehicle access parameters when calculating habitat security levels.

Conclusion

With the clarification in guideline GA-SM-GDL-01 to address routes open to wheeled motorized use by the public, I find the revised plan provides the habitat conditions necessary to support elk.

Grizzly Bear

Overall Background for Grizzly Bear Habitat Management on the Flathead and across the NCDE

In 1975, the USFWS listed the grizzly bear as a threatened species in the lower 48 States, giving the species Federal protection under the ESA. The grizzly bear recovery plan (USFWS 1993) guides recovery efforts for the species, by describing the actions that are necessary for conservation of the species and establishing criteria for down-listing and delisting. The 1993 recovery plan (USFWS 1993, p. 16) identified two requirements that must be met before an ecosystem can be delisted: 1) attainment of the population demographic parameters for that ecosystem within the monitoring period specified, and 2) completion of an interagency conservation strategy that will ensure that adequate regulatory mechanisms

will continue to be present after delisting. On May 24, 2018, USFWS supplemented the recovery plan with three habitat based recovery criteria for the NCDE.

The following synopsis provides context and information regarding grizzly bear habitat management on the national forests, the grizzly bear recovery plan and habitat-based recovery criteria, and the draft Northern Continental Divide Ecosystem (NCDE) grizzly bear conservation strategy. As the objection issues for the amendments to the Kootenai, Lolo, Helena, and Lewis and Clark National Forest Plans are inextricably linked with the Flathead National Forest's revised plan, they will be addressed together throughout this response.

Under the ESA, Federal agencies are directed to use their authorities to seek to conserve endangered and threatened species. Since the grizzly bear was listed in 1975, the Forest Service has worked with the USFWS and other government agencies to improve management coordination and habitat conditions, minimize grizzly bear-human conflicts and bear mortality, and increase public awareness and appreciation for the grizzly bear (FEIS, section 4.1). This includes supporting development of the conservation strategy and habitat based recovery criteria.

A Federal Register notice published on Dec. 12, 2017, announced the availability and opportunity to comment on a draft supplement to the recovery plan to append habitat-based recovery criteria for the NCDE. The supplement was finalized May 16, 2018.

The draft NCDE grizzly bear conservation strategy was released for public review and comment in 2013 (USFWS, 2013). It describes the management and monitoring programs that would be needed to maintain a recovered grizzly bear population in the NCDE. In July 2016, USFWS began accepting comments concerning habitat-based recovery criteria for the NCDE grizzly bear population. The final NCDE conservation strategy was made available on the Interagency Grizzly Bear Committee's website in July of 2018 (NCDE Subcommittee 2018), after the publication of the draft RODs for the revised plan and NCDE amendments. The conservation strategy will provide a cohesive umbrella post-delisting for all signatory agencies to operate under and reference, but each signatory will use their own legal process and authority to implement it.

Issue Summary – Use of Best Available Scientific Information for Grizzly Bears

Objectors feel that the forest plan and NCDE amendments are not based upon the best available science and the final EIS does not adequately analyze and disclose impacts on grizzly bears and/or grizzly bear habitat.

Objectors

Defenders of Wildlife, Greater Yellowstone Coalition, WildEarth Guardians, Swan View Coalition, Brian Peck, Flathead-Lolo-Bitterroot Citizen Task Force, Friends of the Wild Swan, North Fork Preservation Association, and Citizens for Balanced Use, Pam Willison, Michele Dieterich

Objectors' Proposed Remedies

"The Forest Service should revise the FEIS to ensure compliance with the ESA, which necessitates recovery across the species' range. If it insists on using a growth rate, the Forest Service must use the 2% growth rate in the latest peer reviewed science, not the criticized 3% assumption. The Forest Service must revise the FEIS to base its decisions on habitat quantity, quality, and sufficiency, not purely on population numbers and an assumed growth rate."

"Assess all motorized routes (the Forest admits it has inadequate knowledge of actual routes and route density in the FEIS – see page 494) and incorporate the best available science on motorized recreation's impacts on grizzly bears."

“Engage in long-term ecosystem wide habitat research and establish a viable baseline. Check assumptions against current population estimates and account for the future proposed lack of ESA protections and failure to comply with Amendment 19.”

“Retain Amendment 19 standards, and move promptly to close and fully decommission 518 miles of national forest system roads and 57 miles of trails within the next 10 years.”

“Revise the Forest Plan to abandon the flawed 2011 baseline. Consider research, such as that by Mattson and Merrill (2001), finding that human-caused grizzly bear mortality was primarily driven by the frequency of human contact (number of people) and the lethality of that contact (presence of firearms). More people hostile to sharing the landscape with grizzly bears will necessarily equate to more dead bears. Mortality assumptions and thresholds must take this into account.”

“Revise the EIS to replace the linear analysis conducted for Zone 1 and the demographic connectivity areas with the moving windows analysis. Ensure consistency across the landscape by applying the moving windows analysis throughout.”

Background

Section 219.3 of the 2012 planning rule addresses the role of science in planning. It requires the responsible official to use the best available scientific information to inform the planning process. In doing so, the responsible official determines what information is the most accurate, reliable, and relevant to the issues being considered.

The Preamble of the planning rule makes clear that there is range of information that can be considered to be the best available scientific information (BASI): “In some circumstances, the BASI would be that which is developed using the scientific method, which includes clearly stated questions, well-designed investigations and logically analyzed results, documented clearly and subjected to peer review. However, in other circumstances the BASI for the matter under consideration may be information from analyses of data obtained from a local area, or studies to address a specific question in one area. In other circumstances, the BASI also could be the result of expert opinion, panel consensus, or observations, as long as the responsible official has a reasonable basis for relying on that scientific information as the best available” (Federal Register volume 77, no. 68, April 9, 2012).

CEQ regulations at 40 CFR 1502.24 require Federal agencies to insure the professional integrity, including scientific integrity, of the discussions and analyses in the environmental impact statements.

The ESA requires the USFWS and the USFS to base their biological opinion and subsequent agency action on the use of best scientific and commercially available data (16 U.S.C. 1536 (a)(2)). In addition, Section 7 (a)(1) of the ESA directs Federal agencies to use their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of threatened and endangered species.

Response

Numerous issues were raised by objectors based on disagreement over, and interpretation of, the best available scientific information. These objections relate to both how science informed the development of the forest plan and amendments, as well as how effects were analyzed in the final EIS.

Several objectors felt that amendment 19 of the 1986 Flathead Forest Plan represents the best available scientific information and so all of its components should have been carried forward into the revised plan and across the NCDE portions of the Kootenai, Lolo, Helena, and Lewis and Clark National Forests in the plan amendments. Flathead forest plan amendment 19 (March 1995) incorporated forestwide objectives and standards pertaining to motorized access and security core areas in grizzly bear habitat. Amendment 19 established a standard for no net increase in total motorized access density or open motorized access density and no net decrease in security core for 54 grizzly bear management subunits. It also established

numeric objectives, often referred to as “19-19-68”, to limit high-density open motorized access (OMRD), to limit high-density total motorized access (TMRD), and to provide security core areas that equal or exceed 68 percent of a bear management unit (BMU) for a sub-set of subunits with more than 75 percent National Forest System lands (USDA, 1995b, p. 4).

The Forest relied on Montana Fish, Wildlife and Park’s preliminary report and other unpublished data to develop this 1995 management direction. The “19-19-68” objectives were based on analysis of a “composite home range” of eight adult female grizzly bears, which was the best available information at the time and is still part of the body of the scientific information informing grizzly bear management.

Development of the action alternatives for the Forest’s revised plan and the NCDE plan amendments drew upon the experience of more than 20 years of implementing the “19-19-68” objective of amendment 19, and new information about the status and trend of the grizzly bear population in the NCDE. Currently, due to land acquisition, there are 47 bear management subunits on the Forest that are at least 75 percent National Forest System lands. Thirty-seven of the 47 subunits meet the 19 percent objective for open motorized route density, 32 of 47 BMU subunits meet 19 percent objective for total motorized route density, and 31 of 47 meet the objective of 68 percent or more security core.

The Forest did consider applying all of the components of amendment 19 as part of the no action alternative for the Flathead National Forest’s revised plan and as an alternative considered but eliminated from detailed study for the amendment forests. The research that informed the amendment 19 management direction is still valid scientific information contributing to the body of grizzly bear research; however, it was based upon a progress report for a study of habitat use by just eight female bears in the Swan Mountains (Mace, R.D., and Manley, 1993). Today, more than 20 years later, we have a much more extensive knowledge about the grizzly bear population in the NCDE, which shows that the population is large, well distributed within the recovery area, increasing in size, and expanding its distribution. Notably, the population has been increasing, with full occupancy of the recovery zone starting in 2009 and continuing through 2014, even though not every subunit in the primary conservation area has met the amendment 19 objectives for open motorized access density, total motorized access density, and security core. In addition, it is infeasible to meet the standards of amendment 19 on every subunit of the amendment forests due to inherent landownership patterns (FEIS, section 5.6.5).

Objectors contend that the Forest plan abandons road density and secure core standards for grizzly bears. However, the final EIS demonstrates the revised plan was developed in consideration of the road density and secure core standards of amendment 19, together with current scientific information. This includes standards for no net increase in open motorized route density and total motorized route density, and no net decrease in secure core within the NCDE primary conservation area (PCA). The final EIS is forthcoming on the existing condition of motorized access density and secure core in the analysis areas, including the use of a moving windows analysis method within the recovery area/PCA to calculate motorized route density by alternative, including the existing condition. (FEIS, section 3.7.5; FEIS, section 6.5.5). The final EIS section 3.7.5 specifically discusses effects by alternative for these parameters. It also clearly addresses objector’s concerns regarding the use of Boulanger and Stenhouse (2014) as the best available scientific information for linear road/route density standards and analysis of effects in the demographic connectivity areas and zones 1, 2, and 3 (FEIS, appendix 8 pp. 8-105 and 8-111).

Objectors were also concerned about the effectiveness of road storage versus road decommissioning. An explanation of how motorized route density was determined with respect to actual on the ground route conditions, while recognizing there are unknowns on portions of the forests’ transportation system, is explained in final EIS appendix 8, pp. 8-181 to 182.

As with plan development, the final EIS relies on the most current data and science in its assessment of how the plan direction will impact grizzly bears. For relevancy, the Forest used local data or studies in similar habitat conditions. When local information was not available, they considered peer-reviewed

articles about ecological processes or conditions relevant to the area. The reference sections in the final EIS include the best available scientific information along with opposing scientific information, thereby allowing the deciding official to make an informed decision. The effects of objectors' concerns related to impacts from climate change and increasing human populations are acknowledged and analyzed in section of 6.5.5 the final EIS, subsection "Grizzly bear" cumulative effects, and in appendix 8, response to comments.

Regarding the rationale for adjusting elements originally contained in amendment 19, such as deducting an influence zone for nonmotorized trails from grizzly bear security core, this is addressed in the biological assessments (Kuennen et al., 2017a; Warren et al., 2017) and the final EIS (sections 3.7.5 and 6.5.5).

Several issues were raised related to the interpretation of science in the draft NCDE Conservation Strategy. The Conservation Strategy is a USFWS document and beyond the scope of this objection review. However, because the Strategy provides some of the information used to develop the Flathead National Forest's revised plan and NCDE amendments, I would like to briefly discuss some specific concerns regarding its information. The responses at *Issue Summary – Use of Draft NCDE Conservation Strategy and Lack of Final Habitat-Based Recovery Criteria* address the reliance on the strategy in its draft form.

First, objectors are concerned that the population objectives in the draft NCDE Strategy that informed the plan direction for the forest plan and amendments will not maintain a stable to increasing grizzly bear population, due in part to the use of 2011 as a baseline year. The 2011 population baseline rationale was, and is, thoroughly explained in both the draft and final strategies (USFWS 2013, p. 19; IGBC 2018, pp. 65-66). The final EIS (section 3.7.5) explains that multiple methods and estimates indicate that the NCDE grizzly bear population is growing. Population analyses by Costello and others (2016) resulted in a slightly lower estimate of the annual rate of population growth of about 2 percent, as compared to the earlier estimate of about 3 percent growth by Mace and others (2012). Costello and others (2016) explained the reasons for these differences. The final EIS considers this and more recent research that indicates the population has continued to grow beyond the 2011 level (FEIS, appendix 8).

Much of the concerns with the use of 2011 road density and secure core habitat conditions as a baseline are disagreements on the interpretation and application of the scientific information. However, the final EIS and planning record address these opposing views and provide sufficient rationale for relying on this information to inform plan and amendment direction development.

Second, objectors contend that conservation strategy habitat objectives will not be sufficient to ensure continual occupancy because the analysis does not consider mortality associated with management of food-conditioned bears and the increasing human population in the NCDE. However, population estimates by Costello and others did include mortality associated with conflict bears. Additionally, the final EIS and planning record indicate grizzly bear mortality on National Forest System lands in the plan area is on a downward trend and monitoring shows that grizzly bear populations have been stable to increasing and expanding in distribution (Costello et al., 2016 in FEIS, section 3.7.5). Causes of bear mortality and distribution are well understood and evidence points to a decreasing trend in mortality associated with Federal lands, though mortality on private lands has increased (FEIS, section 3.7.5). The action alternatives include a desired condition and a standard to ensure that food and wildlife attractants are properly stored on National Forest System lands. The potential impacts of the increasing human population in the NCDE area are acknowledged and analyzed in section of 6.5.5 the final EIS, subsection "Grizzly bear" cumulative effects.

Third, objectors contend that the NCDE Conservation Strategy is flawed in its habitat objectives and in its demonstration of how continual occupancy by grizzly bears will be ensured in Management Zone 1. The analysis of alternatives in the final EIS, sections 3.7.5 and 6.5.5 incorporate a robust discussion of grizzly

bear populations, food sources, causes of mortality, distribution of populations, and human developments. Scientific studies and instances of incomplete information are also identified. The analyses and documentation support the assertion that there has been a successful increase in the numbers and distribution of grizzly bears in zone 1 over the period 2004 through 2014 and that a healthy and viable population is being maintained.

There were additional objections specific to the sufficiency of the conservation strategy, the habitat based recovery criteria supplement to the recovery plan, and the boundaries of the primary conservation area or the recovery zone. However, the recovery plan is a USFWS document and the overall adequacy of its content is the purview of the USFWS. The conservation strategy was developed by an interagency group of grizzly bear experts and land managers based upon the best available scientific information, with final signature by the interagency NCDE Subcommittee. The conservation strategy outlines a monitoring plan so that changes can be made in the future if warranted.

Conclusion

Many of the fundamental issues around the update to grizzly bear management direction in the forest plan and NCDE amendments center on disagreements over and interpretation of the best available scientific information. However, I find the Forest Supervisors relied on a broad range of information sources, including the grizzly bear recovery plan, the draft NCDE conservation strategy, new peer-reviewed literature, and other sources that represent the best available scientific information in the development of the plan and plan amendments. The final EIS addresses the opposing views objectors present, appropriately addresses effects at a programmatic scale, and demonstrates scientific integrity in the discussion and analyses as required by the CEQ regulations at 40 CFR 1502.24.

I also appreciate the work the staff on the Flathead National Forest and amendment national forests did to work closely with the Grizzly Bear Recovery Office, USFWS Montana Field Office, and the conservation strategy team to ensure that the Flathead National Forest's revised plan and the NCDE amendments were well-aligned with the scientific information used to develop the conservation strategy.

Issue Summary – Adequacy of Plan Direction to Provide for Grizzly Bear Recovery

Objectors contend the forest plan and NCDE amendments do not provide adequate protection for the grizzly bear to ensure its continued survival and recovery.

Objectors

WildEarth Guardians, Defenders of Wildlife, Winter Wildlands Alliance, Flathead-Lolo-Bitterroot Citizen Task Force, Swan View Coalition, Greater Yellowstone Coalition, Stephen Braun, Steve Gniadek, Michele Dietrich, Chris Gotschalk, Jeff Lonn, Brian Peck

Objectors' Proposed Remedies

“Revise the Forest Plan to abandon the false “temporary” label [for an increase in motorized access] and the flawed 10-year running average assessment, remove temporary public access for firewood gathering, and remove administrative use loopholes. Ensure compliance with scientifically defensible short-term grizzly tolerance levels.”

“Revise the Forest Plan to account for the impacts of displacement, and designate high-intensity, non-motorized trails as areas requiring a buffer of at least 500 meters from grizzly bear Security Core habitat.”

“Revise the Forest Plan to eliminate late-season snowmobile access in all occupied and/or modeled grizzly bear denning habitat. Account for climate change induced changes to motorized recreation use and timing. Include clear mitigation requirements for any and all over-snow recreation.”

“Objectors identified additional standards and guidelines such as retention of Amendment 19, adoption of Alternatives 3 and C, expansion of PCA habitat protection into Zone 1, and additional habitat protections for Zone 2.”

“Terms and conditions included with the forest plan Biological Opinions must be incorporated into the plans as plan components.”

Background

Per the 2012 planning rule, the forest plan must “provide the ecological conditions necessary to contribute to the recovery of federally listed threatened and endangered species” (36 CFR 219.9), including grizzly bears.

While the Flathead National Forest plan was revised under the 2012 planning rule, the amendments of the Helena, Lewis and Clark, Kootenai, and Lolo forest plans were prepared in accordance with the transition provisions at 36 CFR 219.17, which allow forests to amend plans using the 1982 planning regulations (see 36 CFR §§ 200-299, revised as of July 1, 2000). This requires plans to provide for diversity of plant and animal communities and tree species consistent with the overall multiple-use objectives of the planning area (1982 version - 36 CFR 219.26).

Per the ESA, Federal agencies are required to ensure that any action authorized, funded, or carried out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat (ESA, section 7(a)(2)). Future ground-disturbing activities authorized consistent with the forest plan and amendments could not occur without further site-specific analyses, section 7 consultation, and project decision documents.

Response

Objectors assert the revised plan and amendments are insufficient for various reasons. Objections related to retaining amendment 19 and relying on the 2011 road density and secure core baseline are addressed in my response at *Issue Summary – Use of Best Available Scientific Information for Grizzly Bears*. Objections related to the plan’s lack of direction to provide for connectivity are addressed at *Issue Summary – Connectivity to Other Recovery Zones*.

The final EIS and planning record demonstrate the revised plan and amendment direction is sufficient for objection issues related to effects from winter recreation and late-season snowmobiling (sections 3.7.4, 3.7.5, and 3.7.7), high-use non-motorized trails (section 3.7.5 *Non-motorized trail access*), temporary disturbance (sections 3.7.5 and 3.7.7 and appendix 8, p. 8-168), placing roads in intermittent stored service (section 3.7.5 *Consequences of geographic area plan components for alternative B modified—Swan Valley*; section 3.7.7), increasing developed recreation sites (appendix 8, p. 8-165 and section 3.7.5 *Consequences of recreation management for alternative B modified*, and other potential effects to grizzly bear habitat in through sections 3.7.5 and 6.5.5. The final EIS demonstrates scientific integrity in the discussion and analyses as required by the CEQ regulations at 40 CFR 1502.24.

Some objectors assert the revised plan and amendments fail to include adequate regulatory mechanisms needed to contribute to recovery. One factor of this concern is due to what they view as improper reliance on the draft conservation strategy. See my response at *Issue Summary – Use of Draft NCDE Conservation Strategy and Lack of Final Habitat-Based Recovery Criteria* and *Issue Summary – Use of Best Available Scientific Information for Grizzly Bears* for that factor. Another factor relates to concerns over the sufficiency of desired conditions. An objector asserts that if the Forest Service intends for the plan and amendments to contribute to recovery, they must include sufficient standards and guidelines to be viewed as adequate regulatory mechanisms. I address objectors’ concerns regarding the enforceability of all plan components in my response at *Issues Summary – Plan Component Sufficiency*.

The Flathead National Forest’s revised plan and NCDE amendments provide a large number of ecosystem and species-specific plan components designed to promote grizzly bear recovery as required by planning regulations. Plan components were based on the best available scientific information (see response at *Issue Summary – Use of Best Available Scientific Information for Grizzly Bears*), and their effects are thoroughly documented at the programmatic scale in section 3.7.5 and 6.5.5 of the final EIS. The final EIS analysis concluded that the forest plan and amendments would contribute to grizzly bear recovery by maintaining, improving, or restoring grizzly bear habitat (FEIS, sections 3.7.5 and 6.5.5).

In compliance with Section 7 of the ESA, the Forests submitted a biological assessment to the USFWS who concurred that the proposed action may affect, is likely to adversely affect the grizzly bear but not likely to jeopardize the continued existence of grizzly bear. In the biological opinion, the USFWS documented how the revised plan and amendments reduce the potential for adverse effects and incidental take to occur as a result of forest management. The USFWS concluded that the revised plan and amendments would not appreciably reduce the likelihood of the survival and recovery of the NCDE grizzly bears (USFWS, 2017 BO). If the USFWS proposes delisting in the future, they will determine whether the plan direction approved in the revised plan and amendments is sufficient to provide adequate regulatory mechanisms. If they determine it is not, the plans will be amended as needed at that time.

One objector asserts that terms and conditions included with the forest plan biological opinions must be incorporated into the plans as plan components. This is not correct. There is no requirement in the law or regulation to include terms and conditions as plan components. Forest Supervisor Weber specifically addresses them in the draft ROD and, whether included in the revised plan or not, terms and conditions provided in the biological opinion are mandatory, nondiscretionary items.

Conclusion

Based on my review of this issue and other related objection issues such as those regarding consideration of best available scientific information, I find that the Flathead National Forest’s revised plan and NCDE amendments will contribute to grizzly bear recovery by maintaining, improving, or restoring grizzly bear habitat. The revised plan and amendments continue a proven management direction framework, appropriately updated with 20 years of implementation information and new research that will continue to support grizzly bear recovery, while also managing the National Forest System lands per the Forest Service multiple use mission. The biological assessment for grizzly bear and subsequent biological opinion from the USFWS demonstrate compliance with the ESA (USFWS, 2017a and 2017b).

Issue Summary – Grazing in Grizzly Bear Habitat

Objectors contend the revised plan and NCDE amendments grazing management direction fail to reduce the potential for grizzly bear mortality due to livestock conflicts.

Objectors

WildEarth Guardians, Defenders of Wildlife, Greater Yellowstone Coalition

Objectors’ Proposed Remedies

“Include a forest-wide direction as follows: When resource conflicts arise between the management needs for productive grazing and drought, wildfire impacts, threatened and endangered species, recreation, water quality, water quantity, economic viability of a ranching operation, disease conflict with native wildlife or other multiple uses, and the permittee is willing, retiring and permanently closing grazing allotments is a viable and permissible range management tool.”

“For Alternative A, “Protections and mitigations to reduce livestock-grizzly bear conflicts include (1) deferring livestock grazing in important spring habitat until after July 1 and (2) including permit measures to protect vitally important food sources from conflicting and competing uses by livestock” (Flathead EIS, p. 532). These plan components need to be retained in the revised plan.”

“The Desired Condition, Standards and Guidelines for grazing proposed for Zone 1 and the DCAs in Alternative 3 be expanded in to Zone 2 or in the very least a Genetic Connectivity Area through the Divide landscape and Boulder Mountains. In addition, the following guidelines (NCDE-GDL_GRZ-01 and 02; FW-GDL-GR-01 and 02) allowing for the phase out of grazing or moving livestock where recurring conflicts occur if there is a willing permittee as well as incorporating within allotment management plans/Plans of Operations measures to protect key grizzly bear food production areas from grazing effects, should be applied to Zone 2 or a Genetic Connectivity Area.”

Background

As stated in the final EIS (section 6.15.4), livestock grazing has historically occurred on the many range allotments on National Forest System lands within the primary conservation area and associated zones. However, because of the decline in the livestock grazing industry in the area and a reduction in the number of acres identified as suitable for livestock grazing as well as a decrease in acreage providing forage for livestock, the overall use of range allotment has decreased from historical highs. With a decline in grazing, active allotments are administratively closed when they are no longer being used by the user.

Active allotments represent the current grazing activity within the Forests. Grazing allotments that are not active are not likely to continue because of the lack of demand for their use. Currently, there are 65 active livestock grazing allotments inside the primary conservation area and zone 1 across all national forests in the NCDE (62 cattle and 3 sheep; acres shown in table 217; animal unit months shown in table 218). The Helena-Lewis and Clark, Kootenai, and Lolo National Forests currently have 58 range allotments within the primary conservation area and zone 1. The primary conservation area contains 32 active allotments consisting of 219,235 acres that support approximately 156,493 animal unit months.

Based on the definition of the primary conservation area, grazing allotments within the primary conservation area are more likely to experience higher densities of grizzly bears. Zone 1 allotments are expected to currently have lower densities of bears than those inside the primary conservation area. Zones 2 and 3 are adjacent to zone 1 on the Helena-Lewis and Clark National Forest and are expected to have the lowest density of grizzly bears.

Response

Objectors expressed concerns with the potential detrimental effects of livestock grazing on grizzly bears and requested additional standards and guidelines to address potential conflicts.

Both the plan and the amendments include a desired condition that applies across the NCDE primary conservation area, stating that: “the number, capacity of, and improvements on cattle and sheep grazing allotments support ecologically sustainable grazing, and temporary grazing permits are used effectively for management of noxious weeds while minimizing the risk of grizzly bear-human conflicts on NFS lands” (FW-DC-GR-01 and NCDE-DC-GRZ-01). Standards and guidelines are included to address grazing conflicts in the primary conservation area, zone 1, and the demographic connectivity areas. In response to public comments, several of the desired conditions, standards, and guidelines related to livestock grazing have been extended to zone 1 under alternative 2 modified.

Although objectors are concerned the NCDE amendments don’t address the potential for grizzly bear mortality due to livestock interactions in zone 2, I found this concern was adequately addressed in the final EIS. It indicates that zone 2 is not considered necessary to the recovery of the NCDE population. The goal of zone 2 is to provide the opportunity for movement by male grizzly bears, sufficient for genetic interchange, from the NCDE to the Greater Yellowstone Ecosystem. The emphasis is on maintaining existing resource management while preventing and responding to demonstrated conflicts. It should be noted that zone 2 is dominated by private landownership. Response to grizzly bear-livestock conflicts on private lands is provided by MFWP bear management specialists in the NCDE and is not within USFS authority (FEIS, section 5.6.5 and appendix 8, p. 8-163)

Zone 3 is not needed for recovery of the grizzly bear but is an area where responding to grizzly bear-human conflicts would be emphasized. Zone 3 is also dominated by private landownership. Adding the standards for livestock grazing that are applicable to the primary conservation area is not needed and likely would not be effective in zone 3.

Objectors specifically found the guideline for voluntary retirement of sheep allotments in Salish Geographic Area and the primary conservation area of the amendment forests insufficient (GA-SV-GDL-04 and NCDE-GDL-GRZ-01); believing guidelines are discretionary. See the response to *Issue Summary – Plan Component Sufficiency* regarding the non-discretionary nature of plan components.

Conclusion

In review, I find the plan components in both the revised plan and NCDE amendments are sufficient to address grazing conflicts with grizzly bears. The revised plan would constrain livestock grazing to baseline levels in the primary conservation area, and also in zone 1. This is based on the philosophy espoused in the draft Conservation Strategy of continuing the management that occurred during the period when the grizzly bear population was stable to increasing and expanding its distribution. Grizzly bear survival and mortality would be monitored across both the primary conservation area and zone 1 to ensure that a healthy population is maintained.

Issue Summary – Connectivity to Other Recovery Zones

Objectors contend the forest plan and amendments do not provide for connectivity with the other grizzly bear recovery zones and are therefore not sufficient to support recovery of both the NCDE population and the species as a whole.

Objectors

North Fork Preservation Association, Defenders of Wildlife, Greater Yellowstone Coalition, Wild Earth Guardians, Brian Peck

Objectors' Proposed Remedies

“Revise the Forest Plan to take into account impacts of the portion of the NCDE managed by other agencies who do not require food storage and other attractant controls, take into account the mortality cause attribution of Costello et al. 2016, reject the flawed 2011 baseline and revise using the best available science. Protect key linkages and corridors with Wilderness designations. Comply with Amendment 19.”

“Revise the Forest Plan to ensure female dispersal into and occupancy of the CYE from the NCDE, including by reducing road densities and securing connectivity corridors and linkages.”

“Revise the Forest Plan to incorporate necessary carnivore conservation provisions into its revised plan include: (1) ensure maintenance of food resources with proper management of habitat and prey populations; (2) provide security from excessive mortality with networks of core reserves and other precautionary measures; and (3) maintain regional connectivity with landscape linkages. Id. Adopt Alternative C’s 506,919 acres of Recommended Wilderness (including 98% of all inventoried Wilderness areas) and lower acreage of General Forest MAs modified accordingly.”

“Revise the Forest Plan to afford bears in Zone 1 all protections at the same level as in the PCA. Revise the Forest Plan to afford Zones 1, 2, and the DCAs the same protections as afforded in the PCA, including adherence to Amendment 19 road density standards.”

“The Forest Service should use existing modeling efforts (see pages 8 - 9 and 9 – 11 from our Scoping and DEIS comments respectively, and Peck et al. (2017)) to conduct an assessment comparable to Schwartz et al. (2010), that identifies potential connectivity habitat including areas of low mortality risk

(i.e. with suitable habitat protections), as well as areas of higher mortality risk where management standards could be improved. A Genetic Connectivity Area (GCA) should be defined, informed by those results, and designated in the Final EIS spanning a contiguous path between the NCDE and GYE. Within the GCA, resource management aimed at reducing motorized route densities and use as well as site development restrictions should be implemented in high-risk areas. In areas with adequate secure habitat (i.e. low mortality risk), standards aimed at maintaining current management direction should be implemented. See specific recommendations for plan components below.”

“Implement a standard pertaining to and limiting site development to one increase in baseline (as existed in 2011) per decade throughout Zone 2, or in the very least a Genetic Connectivity Area that spans a contiguous path between the NCDE and GYE.”

Background

The planning rule states that forest plans must include ecosystem plan components that maintain or restore connectivity, which is one element of ecosystem integrity (36 CFR 219.9).

Per the 2012 planning rule, the forest plan must “provide the ecological conditions necessary to contribute to the recovery of federally listed threatened and endangered species” (36 CFR 219.9), including grizzly bears.

Response

Objectors expressed concern about habitat connectivity, which the Forests did consider in plan development and analysis. Connectivity of populations between the United States and Canada, as well as between ecosystems, is well documented in the record, as are human influences, motorized access, and barriers to connectivity. Despite barriers under the existing conditions, bears currently occupy areas between the NCDE and GYE (FEIS, section 3.7.5 *Grizzly bear*; section 6.5.5 *Motorized access densities and secure core inside the recovery zone*; FEIS, appendix 8, pp. 8-193 to 195 and pp. 8-198 to 199). The Forest Service is coordinating with transportation agencies, railroads, and other entities to improve linkages and connectivity and mitigate development impacts (FEIS, section 3.7.5 *Grizzly bear habitat and human developments* and *Grizzly bear habitat and security*, and section 4.1.4).

Objectors contend road density standards in zones 1 and 2 are inadequate, and would prefer to see connectivity corridors protected via recommended wilderness land allocation. The development of road density standards, however, was based on the best available science, as addressed in my response at *Issue Summary – Use of Best Available Scientific Information for Grizzly Bears*. This includes evidence that the NCDE grizzly bear population has expanded beyond the primary conservation area into most of zone 1 and parts of zone 2 and 3 under existing habitat conditions and management direction.

Details of the connectivity analysis can be found in the biological assessments for the revised plan (Kuennen et al., 2017a, pp. 134, 136, 153, 155-156) and the NCDE amendments (Warren, 2017, pp. 12-13, 14, 17, 31-33, 42-43, 50-51, 56, 63-64). The USFWS biological opinions also confirmed that the revised plan and amendments would contribute to connectivity both within and between ecosystems.

Conclusion

I find the revised plan and amendments include appropriate measures using the best available scientific information to allow for grizzly bear connectivity. See also my response in *Issue Summary – Connectivity* in the preceding section.

Issue Summary – Providing for Recovery beyond the NCDE Population

Objectors contend the scope of planning was incorrectly limited to the NCDE and therefore does not contribute to grizzly bear recovery or contribute to a viable populations of grizzly bears within its range.

Objectors

Defenders of Wildlife, Wild Earth Guardians, Brian Peck, Flathead-Lolo-Bitterroot Citizen Taskforce, Stephen Braun, Greater Yellowstone Coalition, North Fork Preservation Association

Objectors' Proposed Remedies

“The scope of this process was defined in an impermissibly narrow manner and its actions to “incorporate direction to maintain baseline levels and benefits” (Kuennen et al., 2017a, p. 154) therefore fall short of what is needed. The Final ROD must describe the appropriate scope of the action. In some cases, plan direction from other alternatives is adequate to meet the appropriate purpose of the action, and should be adopted in the final amendments.”

“The Forest Service should commit to providing for population viability for the species as a whole, both within the NCDE and between populations/ecosystems, thereby supporting the recovery of other still threatened populations as well as a connected Northern Rockies grizzly bear metapopulation. To achieve this, the F.S. should incorporate specific Amendment plan components to support long-term functional connectivity through Zone 2 as described in subsequent sections.”

“The Forest Service should expand their Purpose and Need to include a commitment to supporting the NCDE as a source population to aide in the recovery of all grizzly bear populations and thereby supporting one large connected Northern Rockies grizzly bear metapopulation. As stated above specific plan components should then be implemented to support long-term functional connectivity through Zone 2 as described in our following objections/solutions.”

“The FEIS should include the Beaverhead-Deerlodge National Forest and include a desired condition to provide for long-term functional connectivity throughout all Forests in Zone 2 (including the BDNF) and implement the road density, site development, and grazing standards and guidelines recommended above on all Zone 2 Forests to achieve that condition.”

Background

Per the 2012 planning rule, the forest plan must “provide the ecological conditions necessary to contribute to the recovery of federally listed threatened and endangered species” (36 CFR 219.9), including grizzly bears.

Under the transition provisions of the 2012 planning rule (36 CFR 219.17), the amendments of the Helena, Lewis and Clark, Kootenai, and Lolo forest plans were prepared in accordance with the 1982 planning regulations (see 36 CFR §§ 200-299, revised as of July 1, 2000). This requires plans to provide for diversity of plant and animal communities and tree species consistent with the overall multiple-use objectives of the planning area (1982 version - 36 CFR 219.26).

Response

The objector contends that the described scope of the forest plan revision is “impermissibly narrow” and therefore does not contribute to recovery of grizzly bears as required by 36 CFR 219.9. They take exception to the purpose and need descriptions that speak to continued recovery of the NCDE grizzly bear population and contend that emphasis on the NCDE population does not support the species’ recovery across its range. Although the objector concedes, “other language can be found suggesting there may also be benefits to other grizzly bear populations” in the final EIS and BO, they allege, “they are not backed by regulatory mechanisms that would allow the NCDE to function as a source population.” They indicate the analysis does not sufficiently demonstrate the current NCDE population size is an indicator of its ability to continue to grow and expand into other ecosystems, rather than just persist in the NCDE.

Although the purpose and need and plan components apply to the portions of the Forest Service planning units within the NCDE recovery zone, the context and potential effects on the Cabinet-Yaak and

Yellowstone populations are also discussed (section 6.5.5). The analysis area for grizzly bear cumulative effects encompasses parts of seven national forests (Flathead, Helena, Kootenai, Lewis and Clark, and Lolo as well as the Gallatin and Beaverhead-Deerlodge National Forests), Glacier National Park, Bureau of Land Management lands, parts of the Flathead and Blackfeet Indian Reservations, and State and private lands. The NCDE is contiguous to Canadian grizzly bear populations and habitat, so the status of the portion of the grizzly bear subpopulation that is north of the Canadian border and south of Canada Highway 3 is also discussed in relation to the potential effects of the amendments.

Several objectors contend the Beaverhead-Deerlodge National Forest plan should have been included with the NCDE amendment forests. The Beaverhead-Deerlodge National Forest does not have any lands within the NCDE primary conservation area, zone 1, or zone 3. However, portions of the Boulder River and Jefferson River landscapes were identified as zone 2. In zone 2, the emphasis is on conflict prevention and response, with food/wildlife attractant storage rules implemented on most Federal and State lands. Because the draft NCDE Grizzly Bear Conservation Strategy recommended that existing resource management direction and opportunities be maintained in zone 2, there is not a need to amend the Beaverhead-Deerlodge National forest plan at this time. The final EIS discloses the effects of habitat conditions on the portions of the Beaverhead-Deerlodge National Forest adjacent to the Helena National Forest to better assess the potential for the movement of male bears through National Forest System lands (section 5.6.5 and section 6.5.5).

Research demonstrates the NCDE grizzly bear population has the estimated numbers and distribution of reproductive individuals to be self-sustaining and that grizzly bears are well distributed throughout the recovery zone. The final EIS acknowledges the importance of connectivity between different grizzly bear populations and the potential for the NCDE population to serve as a source population contributing to genetic diversity in other recovery areas (section 6.5.5). As noted in my response above, the forest plan and amendments contain plan components designed to maintain or enhance connectivity with populations outside of the planning area. Research cited in the final EIS shows that growth of the NCDE population has already been associated with bears moving into new territory, and plan direction is designed to maintain habitat conditions that have been associated with this period of population growth and expansion.

Conclusion

I find the scope of the purpose and need to provide plan direction for the areas of the planning units within the NCDE was appropriate and that the programmatic analysis sufficiently demonstrates that maintaining a stable to increasing population in the NCDE allows it to serve as a source population to contribute to recovery of the metapopulation. As noted in my responses at *Issue Summary – Connectivity to Other Recovery Zones* and *Issue Summary – Providing for Recovery beyond the NCDE Population*, plan components facilitate genetic and demographic connectivity of bears between the NCDE and other recovery zones, thus promoting potential dispersal and supporting recovery of the species across its range.

Issue Summary – Use of Draft NCDE Conservation Strategy and Lack of Final Habitat-Based Recovery Criteria

Objectors are concerned that the revised plan and amendments EIS improperly relied on the draft NCDE grizzly bear conservation strategy and a lack of final habitat-based recovery criteria. They believe this deprives the public of an opportunity to comment on actual decision documents.

Objectors

Defenders of Wildlife, WildEarth Guardians, Citizens for Balanced Use, Brian Peck, Flathead-Lolo-Bitterroot Citizen Taskforce

Objectors' Proposed Remedies

'Revise the forest plan once adequate regulatory mechanisms are in place... [and] ...revise these amendments and reopen to public comment upon publication of a Final Conservation Strategy and HBRC.'

"The Forest Service must base its Forest Plan amendments on final and valid habitat based recovery criteria. The Forest Service must await publication of the final HRBC, ensure they are legally valid and scientifically sound and ensure that decisions are based on enforceable, measureable habitat based recovery criteria. The Forest should undertake long-term study of habitat conditions in the NCDE relevant to bears at least as robust as those long-underway in the Greater Yellowstone Ecosystem."

Background

The Grizzly Bear Recovery Plan (USFWS, 1993) identified recovery goals, objectives, and tasks necessary for recovery of the species, and also called for development of a conservation strategy so that continuity and consistency of management would be provided following delisting.

Response

The assertions that the Forest Supervisors should not revise or amend the forest plans based on a draft conservation strategy and before habitat-based recovery criteria were completed has been fully responded to in the final EIS (alternatives eliminated from detailed study in FEIS, section 5.6.5; appendix 8, pp. 8-109 to 8-111; and FEIS, section 5.6.5). As described in my responses above, I have found in my review the Forest properly relied on information contained in the draft Conservation Strategy, as well as other sources of information, as the best available scientific information to develop plan components for the revised plan and amendments. The effects analysis demonstrates scientific integrity and addresses opposing views.

Although, I understand there remains concerns and disagreements on use of the draft conservation strategy because of the potential for changes in the final, Forest Supervisor Weber did address this in the draft ROD. It explains that if plan component changes are needed to address any substantive changes made to the final conservation strategy, then subsequent National Environmental Policy Act and National Forest Management Act procedures will be undertaken at that time. As the habitat-based recovery criteria and final conservation strategy have been made available during this pre-decisional review, I am instructing Forest Supervisor Weber to determine whether changes to the plan and amendments are necessary, or whether additional analysis is warranted prior to signing the final ROD.

The public has been provided multiple opportunities by USFWS to comment on the draft Strategy and the draft habitat based recovery criteria (FEIS, sections 3.7.5 and 5.6.5, draft ROD for the NCDE amendments, p. 12), as well as the many opportunities to engage and comment during the development of the revised plan and amendments (FEIS, section 2.2.1, draft ROD for the revised forest plan (pp. 4-5), draft ROD for the NCDE amendments (pp. 1-2, 14-15)).

One objector asserts the conservation strategy cannot be used to inform the plan components because the strategy "has been recently determined to be old, outdated, and in need of revision by the USFWS". However, the basis for this objection is a quote from the USFWS recovery coordinator that was referring to the 1993 Grizzly Bear Recovery Plan, not the 2013 draft NCDE conservation strategy.

Conclusion

I find the final EIS, supporting documents, and consultation record provides a complete and thorough record of response to this issue. It was not necessary for the Forest Service to wait until the Strategy was finalized or the habitat-based recovery criteria were completed before revising or amending its plans. The NFMA allows for plans to "be amended in any manner whatsoever after final adoption" (16 USC 1604). However, since both the final conservation strategy and the habitat-based recovery criteria have been

completed, I am instructing Forest Supervisor Weber to review them and determine if they provide new information that warrants any changes in the plan components or analyses prior to signing the final ROD.

As an objector indicated in at the resolution meeting, much of their concerns are related to the content of the conservation strategy rather than whether it is in draft or final form. I address key aspects of this issue in my response at *Issue Summary – Use of Best Available Scientific Information for Grizzly Bears and Issue Summary – Adequacy of Plan Direction to Provide for Grizzly Bear Recovery*.

Watershed, Riparian, and Aquatic Habitat Plan Direction

Issue Summary – Riparian Management Objectives

Objectors contend the revised plan fails to contain measurable habitat objectives for aquatic ecosystems and because riparian desired conditions are not described in “specific terms”, the plan components do not comply with the 2012 planning rule.

Objectors

Friends of the Wild Swan, WildEarth Guardians, Defenders of Wildlife, Flathead-Lolo-Bitterroot Citizen Taskforce, Stephen Braun

Objectors’ Proposed Remedies

“The requirement for ecological integrity is to manage so that the dominant ecological characteristics occur within the natural range of variation. Desired conditions must include reference ranges, and be described in “specific” terms.”

“Develop numeric Riparian Management Objectives for the Flathead based on local conditions and that will be consistent with maintaining or restoring the Primary Constituent Elements for bull trout.”

“The Forest Service should reinstitute rigorous, objective, science-based standards, like RMOs, for delineating whether forest management is yielding suitable bull trout habitat.”

Background

The Inland Native Fish Strategy (INFISH) riparian management objectives (RMOs) developed from Pacific Fish Strategy (PACFISH) objectives were considered good indicators of ecosystem health and were thought to be “a good starting point to describe the desired condition for fish habitat” (USDA, 1995a, p. E-3). INFISH guidance recommended refining RMO values “... to better represent conditions that are attainable in a specific watershed or stream reach based upon local geology, topography, climate and potential vegetation” (USDA, 1995a, p. A-2). Since the Forest adopted INFISH, effectiveness monitoring required by the PACFISH/INFISH biological opinion (PIBO) has occurred. The PIBO monitoring determines whether components in PACFISH and INFISH are effective at preventing further habitat degradation. Data collected includes reach-level stream habitat, temperature, macroinvertebrate, and riparian data to evaluate whether key biological and physical components of aquatic and riparian communities are being degraded, maintained, or restored.

The RMO construct of the past has created an expectation that all watersheds can be managed to achieve a rating of proper functioning condition at the same point in time (Reeves & Duncan, 2009). In addition, a review by Kershner and Roper (2010) disclosed that the eight riparian management objectives monitored in 726 reference and managed subwatersheds had never all been properly functioning in one watershed at the same time. Best available scientific information indicates that the way RMOs are to be applied under the INFISH strategy needs to change.

Response

Objectors contend that the Forest should adopt science-based, numerical benchmarks that provide protections exceeding those provided by INFISH's RMOs. They allege that without concrete guidance delineating objective criteria for bull trout habitat, determinations will be made in an "ad-hoc, arbitrary, subjective way that will prevent the Forest from ensuring comprehensive protections for bull trout". Another objector indicates that without describing the reference ranges for desired riparian conditions in specific terms, the plan components are simply repeating the requirements of the 2012 planning rule and therefore do not provide for ecological integrity.

Objectors also contend that the elimination of RMOs "weakens RMZs as compared to RHCA's plus RMOs under INFISH". They allege that "failing to provide numerical standards and objectives and bright line prohibitions and requirements to achieve habitat conditions necessary for bull trout, the forest plan fails to provide for their conservation."

The perspective of some objectors is that the application of the quantifiable RMOs in a "consistent and repeatable system across the forest" is better for bull trout protection. However, as indicated in the final EIS, given the dynamic ecological conditions of the Forest, the broad scale INFISH RMOs did not adequately reflect the varying conditions of bull trout habitat across the Forest. With over a decade of consistently collected data and improvements in data analysis, PIBO data can now be used to compare managed and reference watersheds on the scale of individual national forests. PIBO monitoring best meets the original intent of INFISH riparian management objectives by providing rigorously collected local data that can be statistically compared to reference conditions in the same geophysical province (FEIS, section 3.2.10). As admitted by the objectors, RMOs under INFISH did not bind the agency from making future determinations. Rather the INFISH indicates the interim RMOs "represented a good starting point to describe the desired condition for fish habitat."

As a result, complying with the common INFISH standard/guideline language to "not retard or prevent attainment" of RMOs may or may not adequately address the appropriate quantification of RMO conditions. In contrast, the revised plan's desired condition FW-DC-WTR-04, which describes the desired characteristics for large woody material, percent pools, residual pool depth median particle size, and percent fines as defined by agency monitoring, will allow site-specific planning to identify the reference range for those characteristics at the appropriate scale. That "reference range" is now defined by over a decade of PIBO monitoring specific to the aquatic habitat characteristics of the Forest. This is an appropriate update and adaption of the 1995-era "interim" INFISH.

In addition, FW-DC-WTR-04 is applied in concert with the desired condition FW-DC-WTR-07 which states: "The sediment regime within water bodies is within the natural range of variation. Elements of the sediment regime include the timing, volume, rate, and character of sediment input, storage, and transport"; and FW-DC-RMZ-01 which indicates: "Riparian management zones reflect a natural composition of native flora and fauna and a distribution of physical, chemical, and biological conditions appropriate to natural disturbance regimes and processes affecting the area. In addition to natural processes, vegetation management activities contribute to vegetation conditions that are resilient. The species composition and structural diversity of native plant communities in riparian management zones, including wetlands, provide summer and winter thermal regulation, nutrient filtering and appropriate rates of surface erosion, bank erosion, and channel migration".

However, I can appreciate the uncertainty objectors may have regarding how reference conditions in FW-DC-WTR-04 would relate to the consideration of natural disturbance in FW-DC-RMZ-01 during site-specific planning. The exact meaning of "within reference ranges as defined by agency monitoring" is unclear in the desired condition. The intent of this language is to mean that stream habitat features are within the range of conditions reflected in the PIBO data collected for reference watersheds, and the conditions for the population of reference watersheds are identified through the plan monitoring program.

Therefore, I'm instructing Forest Supervisor Weber to clarify the meaning of "within reference ranges as defined by agency monitoring" to state "...within the range of conditions of the reference watersheds, as defined by agency monitoring." This provides enough specificity to evaluate progress toward its achievement.

I'm also instructing Forest Supervisor Weber to add text that cross-references FW-DC-RMZ-01 to FW-DC-WTR-04 and FW-DC-WTR-07 to clearly indicate the integrated nature of the three plan components as it relates to evaluating project-level management activities in riparian management zones.

An objector alleges the revised plan fails to include a plan component for water quality similar to Riparian Goal (1). However as discussed throughout this response to Watershed, Riparian, and Aquatic Habitat Plan Direction issues, the plan includes integrated plan components for water quality, including desired condition FW-DC-WTR-04 discussed above, that exceed the riparian goals and standards/guidelines in INFISH. The plan also includes standard FW-STD-WTR-02 that states "project-specific best management practices (including both Federal and State of Montana practices) shall be incorporated into project plans as a principle mechanism for controlling non-point pollution sources in order to meet soil and watershed desired conditions and to protect beneficial uses," as required by 36 CFR 219.8(a)(4) that plans must ensure implementation of best management practices for water quality.

Conclusion

I find Forest Supervisor Weber appropriately updated INFISH's interim RMOs with desired conditions for reference ranges defined by over a decade of PIBO monitoring specific to the aquatic habitat characteristics of the Forest, as anticipated would occur in 1995. However, additional clarification in desired condition FW-DC-WTR-04 will guide appropriate application of the agency monitoring data during project planning.

Although desired conditions must be described in terms that are specific enough to allow progress toward their achievement to be determined (36 CFR 219.7(e)(1)(i)), they are not required to be "measurable" in the context of specific numerical objectives. As indicated in the discussion above, the instructions to clarify FW-DC-WTR-04 and cross-reference it to FW-DC-RMZ-01 and FW-DC-WTR-07 will provide the link to measurable reference ranges based upon agency monitoring.

Issue Summary – Riparian Management Zones

The objectors contend that plan direction to protect riparian management zones (RMZs) is insufficient, and provides less riparian protection than riparian habitat conservation areas (RHCAs) under INFISH.

Objectors

WildEarth Guardians, Defenders of Wildlife, Alliance for the Wild Rockies, Brian Peck

Objectors' Proposed Remedies

"The Forest Service should ensure that the bull trout protections it adopts exceed the insufficient measures from INFISH, and the multiple instances of backsliding on INFISH's protections should be corrected. This should include limiting vegetation management in RMZs so that it is consistent with TM-1 under INFISH (a general blanket prohibition with limited exceptions)."

"The Forest should create a new RMZ standard for vegetation management in the outer RMZ that is consistent with TM-1 from INFISH (a general blanket prohibition with limited exceptions) and that also makes it clear that vegetation management cannot cause short- or long-term degradation to aquatic and riparian conditions."

"We support the creation of an inner riparian zone as long as the outer zone preserves all the conservation measures provided by INFISH."

“Guideline FW-GDL-RMZ-10 should specify what actions may occur if there are insufficient snags in burned riparian habitat. There needs to be overall guidance on what actions may be appropriate in burned RMZs, in particular, criteria for when it is appropriate to remove any dead trees.”

“Forest should increase protections of RMZs to exceed those provided to RHCAs under INFISH. These protections should be consistent across both the inner and outer RMZs in order to adequately protect habitat and species, and the borders of the RMZs for all RMZ categories should extend at least as far as the corresponding RHCA borders under INFISH.”

“Institute Riparian Goal (1) or a strengthened version of it to ensure that management will provide for water quality that provides for stable and productive riparian and aquatic ecosystems.”

Background

INFISH delineates interim Riparian Habitat Conservation Areas (RHCAs) for every watershed on National Forest System lands where it applies. RHCAs are portions of watersheds where riparian-dependent resources receive primary emphasis, and management activities are subject to specific standards and guidelines. RHCAs include traditional riparian corridors, wetlands, intermittent streams, and other areas that help maintain the integrity of aquatic ecosystems by (1) influencing the delivery of coarse sediment, organic matter, and woody debris to streams, (2) providing root strength for channel stability, (3) shading the stream, and (4) protecting water quality.

The 2012 planning rule at 36 CFR 219.8(a)(3) requires:

(ii) Plans must establish width(s) for riparian management zones around all lakes, perennial and intermittent streams, and open water wetlands, within which the plan components required by paragraph (a)(3)(i) of this section will apply, giving special attention to land and vegetation for approximately 100 feet from the edges of all perennial streams and lakes.

(A) Riparian management zone width(s) may vary based on ecological or geomorphic factors or type of water body; and will apply unless replaced by a site-specific delineation of the riparian area.

(B) Plan components must ensure that no management practices causing detrimental changes in water temperature or chemical composition, blockages of water courses, or deposits of sediment that seriously and adversely affect water conditions or fish habitat shall be permitted within the riparian management zones or the site-specific delineated riparian areas.

Response

One of the objectors raised a concern regarding the riparian management zone widths in the revised plan as defined at standard FW-STD-RMZ-01. They point out that this standard needs to include the width description “or to the outer edges of the 100-year floodplain, or to the outer edges of riparian vegetation” for Category 1 and 2. If not, the response to comment on p. 8-108 that states, “the Forest has retained such features as the widths of the original riparian habitat conservation areas” is incorrect.

The objector is correct that in FW-STD-RMZ-01, in category 1 the words “or to the outer edges of riparian vegetation” are omitted, and in category 2 the words “or to the outer edges of the 100-year floodplain” are omitted. The final EIS (section 3.2.6) and Thomas 2017 provide a robust review of the best available scientific information to support the widths defined in FW-STD-RMZ-01, however the final EIS does not discuss the reasons for leaving out these specific components of the width definition. The response to comment which states “the Forest has retained such features as the widths of the original riparian habitat conservation areas, which are now called riparian management zones” is only partially correct; the plan retains interim minimum distances listed in INFISH for fish-bearing streams (300 feet)

and perennial streams (150 feet), but does not retain the language described above. Therefore, I'm instructing Forest Supervisor Weber to revise FW-STD-RMZ-01 to include the omitted language.

Another aspect of the riparian management zone direction that objectors are concerned about is related to specific exceptions identified for vegetation management within the inner RMZ. Their suggested remedy is that limitations should be consistent with TM-1 under INFISH as a correction to “backsliding” on INFISH’s protections. However, TM-1 also includes exceptions to limitations on timber harvest similar to those provided in the revised plan direction. It indicates timber harvest may be allowed when silvicultural practices are applied “to acquire desired vegetation characteristics where needed to attain RMOs” and those practices are applied in “a manner that does not retard attainment of RMOs and that avoids adverse effects on inland native fish”.

In contrast, the revised plan strengthens protections indicating that all “vegetation management” (whether timber harvest or not per TM-1) *shall only occur* in the inner RMZ in order to restore or enhance aquatic and riparian-associated resources. This removes the flexibility of TM-1 to harvest timber so long as it only “avoids adverse effects”. And as indicated above, the plan provides additional assurance of required consistency with desired conditions for riparian habitat conditions with forest-specific PIBO monitoring information, rather than only indicating timber harvest needs to be applied so that it does not retard attainment of RMOs that have been demonstrated to rarely describe the natural range of variation in reference conditions on the forest (Thomas, 2017).

The objector provides similar allegations regarding the plan direction for the outer RMZs, which allows timber harvest per specific guidelines that constrain management activities to ensure vegetation management does not preclude the attainment of the desired conditions. These include guidelines for retaining downed trees (FW-GDL-RMZ-01), retaining live reserve trees (FW-GDL-RMZ-08), retaining snags (FW-GDL-RMZ-10), and designing activities to avoid sediment delivery and alternation of hydrologic processes (FW-GLD-RMZ-12). I find these are much more specific and provide greater conservation of aquatic and riparian habitat than the single timber management standard/guideline in INFISH that only requires activities to “avoid adverse impacts”.

One objector describes an additional concern with guideline FW-GDL-RMZ-10 that addresses snag retention in riparian management zones. They interpret the plan component to provide “a blank check” for response to stand-replacing fire, and that it does not provide assurance that riparian areas would contribute needed dead wood to the ecosystem. The exceptions are intended to allow salvage harvest within areas burned by stand-replacement fire on sites where snag conditions are very abundant and the removal of some of the snags greater than 12 inches diameter at breast height may be desired to achieve other resource objectives (such as fuel reduction) (FEIS, section 3.3.7).

It's important to note this one plan component is part of full suite of integrated plan content. Harvest activities in RMZs need comply with desired conditions that include instream habitat woody material as defined by agency monitoring (FW-DC-WTR-04), wood delivery to streams and streambanks (FW-DC-RMZ-02), and a higher density of large downed wood, snags...” (FW-DC-RMZ-03). Per FW-STD-RMZ-06, vegetation management shall only occur in the inner RMZ in order to restore or enhance aquatic and riparian-associated resources. Therefore, I find there is sufficient plan direction to “ensure riparian areas would contribute needed dead wood to the ecosystem.”

See the response at *Issue Summary – Plan Component Sufficiency* regarding the consistency requirements of desired conditions, standard, and guidelines to provide adequate plan direction.

Conclusion

After correcting standard FW-STD-RMZ-01 to include the omitted RHCA text described above, I find that Forest Supervisor Weber has appropriately updated INFISH’s interim RHCAs with RMZs as required in the 2012 planning rule.

The revised plan RMZs expand protection beyond the widths identified for INFISHs interim RCHAs and establish a suite of integrated plan components and plan content per the 2012 planning rule requirements using updated scientific information and 20-plus years of PIBO monitoring data. I find the vegetation management plan components are much more specific than the INFISH RHCA riparian goals and the single timber management standard/guideline in INFISH that only requires activities to “avoid adverse impacts”, providing greater conservation of aquatic and riparian habitat.

Issue Summary – Thermal Regulation

Objectors are concerned that the revised plan does not provide any standards mandating that native plants provide thermal regulation sufficient to maintain, or obtain, suitability of the stream as habitat for bull trout.

Objector

WildEarth Guardians

Objector’s Proposed Remedy

“Make clear that riparian vegetation in the Forest must provide adequate summer and winter temperatures within riparian and aquatic zones to maintain or restore suitability for bull trout.”

Background

INFISH Riparian Goal 6(b) is to maintain or restore riparian vegetation to provide adequate summer and winter thermal regulation within the riparian and aquatic zones.

36 CFR 219.8(3)(i) indicates “The plan must include plan components, including standards or guidelines, to maintain or restore the ecological integrity of riparian areas in the plan area, including plan components to maintain or restore structure, function, composition, and connectivity, taking into account: (A) Water temperature and chemical composition.”

36 CFR 219.8(3)(ii)(B) indicates “Plan components must ensure that no management practices causing detrimental changes in water temperature or chemical composition, blockages of water courses, or deposits of sediment that seriously and adversely affect water conditions or fish habitat shall be permitted within the riparian management zones or the site-specific delineated riparian areas.”

Response

The objectors allege the desired condition for thermal regulation in stream networks and associated habitats under the revised plan is insufficient and does not adequately replace the riparian goal under INFISH, alleging that to allow vegetation removal RMZs will result in increased stream temperatures.

However, it is inaccurate to state all vegetation removal would result in increased temperatures. The revised plan includes the desired condition FW-DC-RMZ-01 that states: “Riparian management zones reflect a natural composition of native flora and fauna and a distribution of physical, chemical, and biological conditions appropriate to natural disturbance regimes and processes affecting the area. In addition to natural processes, vegetation management activities contribute to vegetation conditions that are resilient. *The species composition and structural diversity of native plant communities in riparian management zones, including wetlands, provide summer and winter thermal regulation*, nutrient filtering and appropriate rates of surface erosion, bank erosion, and channel migration” [*emphasis added here*]. This is equivalent to the Riparian Goal 6(b) with the additional requirements of defined plan consistency for desired conditions. In addition, the revised plan includes the standard FW-STD-RMZ-06 that states, “vegetation management shall only occur in the inner riparian management zone *in order to restore or enhance aquatic and riparian-associated resources*. Exceptions may occur *as long as aquatic and riparian-associated resources are maintained*” [*emphasis added here*].

The additional protections in the inner zone were added above INFISH requirements as the inner zone has been shown to have the most influence on temperature (FEIS, appendix 8, p. 8-80). Thomas 2017 (pp. 2-3) summarizes the best available scientific information on the effects of vegetation management on stream temperatures, stating, “many researchers suggest that a 30 meter buffer next to fish bearing and perennial streams is generally likely to be sufficient to protect against temperature increase... consideration of context and geography is also appropriate.” For fish-bearing streams, the revised plan width of the inner riparian management zone must be a minimum of 150 feet (~45 meters) on each side of the stream.

As indicated in the other responses discussing Watershed, Riparian, and Aquatic Habitat Plan Direction issues, there is additional integrated plan content that will ensure the plan guides future decision making to maintain or restore bull trout habitat, above what is provided in INFISH.

Conclusion

I find the forest plan adequately addressed thermal regulation for aquatic habitats per the requirements at 36 CFR 219.8.

Issue Summary – Roads, Recreation, Minerals, Lands and Special Uses Plan Direction

Objectors contend that road, recreation, mineral operations, and lands and special use management direction under the revised plan is insufficient to protect riparian areas.

Objectors

Friends of the Wild Swan, WildEarth Guardians

Objectors’ Proposed Remedies

“The Forest should adopt road management protections at least as stringent as those found in INFISH’s RF-2.”

“Fully comply with and apply the conditions in the USFWS Biological Opinion of the Effects to Bull Trout and Bull Trout Critical Habitat from Road Management Activities on National Forest System and Bureau of Land Management Lands in Western Montana, (2015) to all roads in all watersheds on the Flathead National Forest.”

“The Forest Plan must contain standards for total road density, must annually monitor culverts and if BMPs are relied on they must be rigorously used (not on just a small segment of the roads).”

“The Forest Service should constrain ORV usage to protect riparian areas subject to the requirements of the 2005 Travel Management Rule and its duty to locate designated trails and areas open to motorized use with the objective of minimizing, inter alia, harassment of wildlife and disruption of wildlife habitat.”

“The Forest Plan should include standards and guidelines at least as protective as INFISH’s MM-1 to MM-6 to address mineral operations or structures in riparian areas so as not to adversely affect inland native fish.”

“The Forest Service should not rely on ad-hoc decisionmaking to issue leases, permits, rights-of-way, and easements, and the Forest Plan should include standards and guidelines addressing these decisions.”

“The Forest Service should not rely on ad-hoc use of the Land and Water Conservation Fund to guide its land acquisitions, exchanges, and conservation easements, and the Forest Plan should include standards and guidelines to guide those transactions in order to ensure they best meet conservation goals.”

Background

INFISH includes standards/guidelines for these resources that vary in their requirements, often not fitting the plan component definitions of the 2012 planning rule.

36 CFR 219.8(3)(i) indicates “The plan must include plan components, including standards or guidelines, to maintain or restore the ecological integrity of riparian areas in the plan area, including plan components to maintain or restore structure, function, composition, and connectivity, taking into account:

- (A) Water temperature and chemical composition;
- (B) Blockages (uncharacteristic and characteristic) of water courses;
- (C) Deposits of sediment;
- (D) Aquatic and terrestrial habitats;
- (E) Ecological connectivity;
- (F) Restoration needs; and
- (G) Floodplain values and risk of flood loss.

36 CFR 219.8(3)(ii)(B) indicates “Plan components must ensure that no management practices causing detrimental changes in water temperature or chemical composition, blockages of water courses, or deposits of sediment that seriously and adversely affect water conditions or fish habitat shall be permitted within the riparian management zones or the site-specific delineated riparian areas.”

Response

Road Management

Objectors contend that the revised plan road management direction is less protective than INFISH. They use INFISH’s RF-2 as an example of plan direction providing more “stringent protections”.

However for the most part, INFISH RF-2 requires analysis, planning, inspection, and mitigation to “avoid adverse effects to inland native fish”, rather than specifically constraining *how* the Forest Service conducts management activities to achieve desired outcomes for riparian conditions and conservation of inland native fish. For example, RF-2 indicates, “for each existing or planned road, meet the Riparian Management Objectives and avoid adverse effects to inland native fish by (b) *minimizing road and landing locations* in Riparian Habitat Conservation Areas.” In contrast, the revised plan includes a non-discretionary guideline (FW-GDL-RMZ-11) that indicates “new roads (including temporary roads) and new landings *should not be constructed* in category 1, 2 or 3 riparian management zones, except where it is necessary for a road to cross a stream.” It does allow for exceptions, but with the caveat that they “may be considered where site-specific analysis and implementation of mitigation measures are determined appropriate by a Forest aquatics specialist to protect aquatic and riparian resources”. I find this provides greater assurance of protection for aquatic and riparian resources than the INFISH component that indicates we should “minimize” locating this infrastructure in riparian areas to “avoid adverse impacts”.

RF-2 also requires the Forest to avoid sediment delivery through outsloping and routing road drainage, avoid disruption of natural hydrologic flow paths, and avoid sidecasting materials in RHCAs. Here again, I find the revised plan includes either the equivalent or better in the guidelines FW-GDL-IFS-03, 06, 07, 08, 10, and 13 which limit the hydrologic connectivity of all forms of routes, indicate all routes should not be located on lands with high mass wasting potential, require stream crossing design to maintain free-flowing streams, require hardening trail and road fords, routing road drainage, and protecting hydrologic flow paths. In addition, as is required in RF-2(f), sidecasting road material is prohibited (FW-STD-IFS-06 and FW-GDL-IFS-09).

Part of objector's issue is with the language in the guideline that indicates the Forest "should" conduct these various road management activities to avoid sediment delivery. See my response regarding the non-discretionary nature of guidelines in response *Issue Summary – Plan Component Sufficiency*.

Another road management concern objectors raise is the plan direction change from INFISH RF-3, which required the agency to "determine the influence" of roads on RMOs and then take action to reconstruct, stabilize, or close roads to avoid adverse effects on inland native fish. The objector's proposed solution is for the Forest to provide an analysis of existing roads and make date-certain commitments by which the Forest Service will take action addressing those existing roads and their related impacts.

The 2012 planning rule has specific requirements for plan components so they are clearly written to "guide future project and activity decisionmaking" (36 CFR 219.7(e)). Sections 22.11 through 22.16 of FSH 1909.12 give guidance for developing the required plan components for every plan. As written in INFISH, RF-3 is not consistent with handbook direction. FSH 1909.12 indicates plan components are not commitments to act (22.1(2)(d)). It further states that standards and guidelines "should not direct or compel process such as analysis, assessment, consultation, planning, inventory, or monitoring" (22.13(4) and 22.14(4)) and must not mandate conditions beyond those affected by a project (22.13(7) and 22.17(7)).

However, my review of the forest plan does find the direction from INFISH RF-03 carried forward in appropriate fashion as desired conditions, objectives, and management approaches per the 2012 planning rule plan component framework. Desired conditions at FW-DC-WTR-06 and 07, and FW-DC-IFS-07 describe the desired outcome regarding sediment conditions and delivery on the Forest. In addition the revised plan identifies a conservation watershed network in which the long-term conservation and preservation of bull trout and pure westslope cutthroat trout is prioritized. The objectives there at FW-OBJ-CWN-01 and 02, together with FW-OBJ-WTR-01 through 04, and FW-OBJ-IFS-01 through 06 describe measureable and time-specific actions the Forest will be taking over the life of the forest plan to maintain or improve watershed conditions. (See also my response at *Issue Summary – Priority Watersheds and the Conservation Watershed Network*.)

In addition, the management approaches in appendix C describe varying road-related actions that may be taken to achieve the objectives. In addition, although not repeated in the forest plan, regulations at 36 CFR 212 Subpart A requires travel analysis, which is similar to the evaluation requirements of RF-03.

Finally, as required by the 2012 planning rule, the forest plan identifies the watersheds that are a priority for restoration and maintenance. These are identified using the watershed condition framework, which is designed to foster integrated ecosystem-based watershed assessments and target programs of work in watersheds that have been identified for restoration.

Therefore, I find the full suite of this integrated plan direction encompasses the purposes RF-3 was intended to accomplish and more.

Objectors provide similar concerns for the change in INFISH RF-4. RF-4 requires new road construction to accommodate a 100-year flood, including associated bedload and debris. It also directs the Forest to improve existing culverts, bridges and other stream crossings to accommodate those conditions. For the reasons listed above regarding guidance for writing standards and guidelines, the Forest appropriately updated their revised plan direction in the form of the forestwide infrastructure standard (FW-STD-IFS-07) that states "To maintain free-flowing streams, new, replacement, and reconstructed stream crossing sites (culverts, bridges, and other stream crossings) shall accommodate at least the 100-year flow, including associated bedload and debris". That standard together with the other integrated plan content appropriately updates INFISH direction for stream crossings.

Some misunderstanding of the purpose of RF-4 may be related to the phrasing used in the 1995 interim direction. INFISH RF-4 states in full:

Construct new, and improve existing, culverts, bridges, and other stream crossings to accommodate a 100-year flood, including associated bedload and debris, where those improvements would/pose a substantial risk to riparian conditions. Substantial risk improvements include those that do not meet design and operation maintenance criteria, or that have been shown to be less effective than designed for controlling erosion, or that retard attainment of Riparian Management Objectives, or that do not protect priority watersheds from increased sedimentation. Base priority for upgrading on risks in priority watersheds and the ecological value of the riparian resources affected. Construct and maintain crossings to prevent diversion of streamflow out of the channel and down the road in the event of crossing failure.

Objectors appear to interpret RF-4 as prohibiting construction or reconstruction of stream crossings if culverts, bridges, etc. pose a substantial risk. Their interpretation appears to indicate that if the *act of improving* a structure poses a substantial risk it is not allowed, stating in their objection: “INFISH’s RF-4 does not allow the construction of new and improvement of existing stream crossing structures if “improvements would/pose a substantial risk to riparian conditions”. However, that would defeat the objective of INFISH’s overall road management direction to improve aquatic habitat conditions.

The word “improvements” here is a reference to a structure such as a culvert, bridge, or stream crossing. Thus, RF-4 indicates the FS should improve stream crossings to accommodate 100-year floods where existing structures [*those improvements do*] pose a substantial risk. And new stream crossings should accommodate a 100-year flood if those structures [*improvements*] *would* pose a substantial risk. I find the revised plan standard at FW-STD-IFS-07 carries this requirement forward, and in fact provides greater protective measures than RF-4 because it requires at least the 100-year flow for *all* stream crossings, regardless of the potential for substantial risk (FEIS, section 3.2.8).

One objector took issue with the change from Amendment 19 grizzly bear total motorized route density limitations, because the application of that plan direction also benefited aquatic habitat when stream aligned culverts were removed through road decommissioning. They indicated the plan is insufficient because it “does not include standards or provisions for reducing road densities”. However, as described above, the plan appropriately includes “provisions” that will either reduce road densities or reduce road-related effects through objectives FW-OBJ-WTR-01 through 04, FW-OBJ-CWN-01 and 02, and FW-OBJ-IFS-01 through 06.

Additional prioritization is provided within the Swan Valley Geographic Area, where an objector accurately indicates there are high road densities due to previous checkerboard ownership. Accordingly, the revised plan includes the geographic area-specific objective GA-SV-OBJ-04 “Decommission or place into intermittent stored service 10 to 30 miles of roads. Priorities are roads causing resource damage in priority watersheds, roads on acquired lands in the Swan Valley that are not needed for fire protection or other resource management, roads within desired nonmotorized recreation opportunity spectrum settings, and/or roads within bull trout watersheds.”

In addition, the USFWS Biological Opinion for bull trout has consolidated past biological opinion road crossing-related terms and conditions for five project options and expanded this into a systematic forest-wide crossing monitoring effort that the Forest is committed to funding and reporting on (USFWS 2017).

See my response at *Issue Summary - Travel Management Rule Subpart A* for objection issues related to the Travel Management Rule.

Other INFISH Plan Components

Objectors continue with similar concerns around other INFISH recreation, mineral operation, and lands and special use components. However, as with the road management component concerns, I find the forest appropriately updated INFISH’s standards and guidelines within the revised plan’s integrated

direction across multiple sections of the plan. For example, in addition to the non-discretionary desired conditions for riparian habitat and water quality, the revised plan includes guidelines that constrain the location of facilities and mineral operations within riparian management zones (FW-GDL-REC-01, FW-GDL-LSU-03, FW-GDL-E&M-07).

Conclusion

I find Forest Supervisor Weber appropriately developed plan components consistent with CFR 219.7(e) that will help protect aquatic ecosystems and conditions potentially affected by roads and road management, sustainable recreation, mineral operations, and lands and special uses. As indicted here and throughout the responses to the *Watershed, Riparian, and Aquatic Habitat Plan Direction* issues, I find the revised plan direction appropriately updated and clarified INFISH direction, providing for conservation of aquatic and riparian habitat.

Issue Summary – Grazing in Riparian Management Zones

Objectors are concerned that the revised forest plan does not adequately address livestock grazing in riparian management zones.

Objectors

WildEarth Guardians, Defenders of Wildlife, Stephen Braun

An Objector’s Proposed Remedy

“The Forest Service should institute protections for RMZs that are at least as protective as INFISH GM-2. The Forest Service should develop livestock grazing standards that are at least as protective as INFISH GM-2 and include requirements to achieve conditions that are greater than or equal to INFISH interim RMOs.”

Background

Per 36 CFR 219.8(a)(3)(ii)(B): Plan components must ensure that no management practices causing detrimental changes in water temperature or chemical composition, blockages of water courses, or deposits of sediment that seriously and adversely affect water conditions or fish habitat shall be permitted within the riparian management zones or the site-specific delineated riparian areas.

Response

Objectors expressed concern that bull trout protections relative to livestock grazing are inadequate, as they don’t duplicate INFISH language. Specifically, they contend FW-STD-GR-08 provides less protection than INFISH, because it only applies to new improvements in riparian zones. They allege that the guidelines in the revised plan are discretionary and “weaken” protections compared to INFISH.

As to the application of standards and guidelines in INFISH versus the revised plan, I’d like to make two important observations. One, INFISH did not specifically identify which components were standards and which were guidelines (the entire section at page A-6 is entitled standards and guidelines). Therefore, allegations that the revised plan changes any one plan component in INFISH from a standard to a guideline are left up to interpretation. Two, the 2012 planning rule specifically defines consistency for all plan components including desired conditions, objectives, standards, and guidelines. Although there is some flexibility in the application of a guideline if a project can demonstrate activities can meet the purpose of the guideline, consistency with the guideline is **not** discretionary. See the response at *Issue Summary – Plan Component Sufficiency* for more information.

In addition, I find that the standards and the guidelines in the revised plan appropriately revise the INFISH standards and guidelines per the plan component definitions in the 2012 planning rule (per the need for updating INFISH to bring it forward in the revised plan). Per the objector’s proposed solution to

“institute protections that are at least as protective as GM-2”, it is included as a standard at FW-STD-GR-08. That standard is written per the handbook direction that plan components “guide the development of future projects or activities and are not commitments to act” (FSH 1909.12 chapter 22.1). It also adds FW-STD-GR-07 that requires new or reauthorized livestock grazing permits to “incorporate requirements that reduce the risk of impacts to native fish or riparian habitat (e.g., through modifying accessibility of riparian areas to livestock, length of grazing season, stocking levels, timing of grazing, etc.)” (revised plan, chapter 2, p. 82).

In addition, guidelines FW-GDL-GR-01, 03, and 04 either carry forward the INFISH direction, or provide additional guidance to reduce impacts. For example, the addition of FW-GDL-GR-04 adds measurable thresholds for bank trampling.

Conclusion

My review has found the plan components provide sufficient grazing management direction to provide for conservation of bull trout habitat. See also my response to *Issue Summary – Plan Component Sufficiency* regarding overall plan sufficiency and the other responses in this section regarding overall watershed plan direction.

Issue Summary – Priority Watersheds and the Conservation Watershed Network

Objectors contend that conservation watersheds lose protection relative to the current plan and the revised plan lacks additional measures protecting priority watersheds.

Objectors

Defenders of Wildlife, WildEarth Guardians

Objectors’ Proposed Remedies

“Provide rationale for each watershed included or excluded in the conservation watershed network that addresses the Conservation Strategy for Bull Trout on USFS Lands in Western Montana.”

“The Forest Service should provide the CWN with additional, substantive protections that recognize its importance. This should include objective, numerical protections that can help ensure that Forest management adequately protects the CWN.”

“The Forest Plan should adopt additional protection for priority watersheds that are at least as protective of those watersheds as INFISH.”

Background

INFISH designated priority watersheds to provide a pattern of protection across the landscape where habitat for inland native fish would receive special attention and treatment. Some plan components applied specifically within priority watersheds. Some priority watersheds would have the highest priority for restoration, monitoring, and watershed analysis. Within the priority watersheds, projects would be screened to determine potential habitat effects and some of the INFISH standards and guidelines.

Criteria considered to designate priority watersheds in INFISH were:

1. Watersheds with excellent habitat or strong assemblages of inland native fish, with a priority on bull trout populations.
2. Watersheds that provide for meta-population objectives.
3. Degraded watersheds with high restoration potential.

The 2012 planning rule requires land management plans to “identify watershed(s) that are a priority for maintenance or restoration” (36 CFR 219.7(3)(i)). The implementation directives indicate identification

of priority watersheds is done to focus effort on the integrated restoration of watershed conditions in those areas (FSH 1909.12 chapter 22.31). Priority watershed are identified using the watershed condition framework which is “a comprehensive approach to watershed management that proactively implements integrated restoration on priority watersheds on national forests and grasslands” (revised plan glossary, p. 212)

The Forest identified a conservation watershed network to emphasize conservation of westslope cutthroat and bull trout by protecting and restoring components, processes, and landforms that provide quality habitat. The purpose of selecting conservation watersheds is to provide long-term protection for native fish to a distributed group of the strongest populations across the Forest (FEIS, section 3.2.9). The revised plan glossary defines the conservation watershed network as “a collection of watersheds where management emphasizes habitat conservation and restoration to support native fish and other aquatic species” (p. 177).

Response

Priority Watersheds in the Revised Plan

Since the identification of priority watersheds in the INFISH amendment, watersheds and their ecological condition have been an increasingly important focus of public land managers. This led to the a national effort to provide a consistent method for categorizing how the Forest Service identifies the condition of subwatersheds as well as to provide guidance to help national forests select priority watersheds in the form of the watershed condition framework (FEIS, section 3.2.3, pp 63-64).

The Forest completed its classification of watershed conditions in 2011 following the guidelines set forth in the Watershed Condition Classification Technical Guide (Potyondy & Geier, 2011). To evaluate baseline watershed conditions across the analysis area, a watershed condition rating was determined for each subwatershed. This characterization estimated the existing condition based on physical characteristics (e.g., hydrologic, geomorphic, landscape, topographic, vegetative cover, and aquatic habitat) and human-caused disturbances (e.g., road construction and vegetative treatments). The Forest identified five Class 2 (functioning at risk) watersheds (Middle Logan Creek, Meadow Creek, Beaver Creek, Jim Creek, and Cold Creek) and 176 Class 1 (functioning properly) watersheds. No watersheds on the Forest were ranked as Class 3 (impaired). Objective FW-OBJ-WTR-01 is to “complete all essential work identified within the Class 2 priority watersheds as identified under the watershed condition framework” (revised plan, p. 17).

Of the Forest’s five Class 2 watersheds, bull trout are found only in Jim and Cold Creeks. These two creeks are rated as the highest priority for restoration of the Class 2 watersheds and are included in the conservation watershed network (FEIS, section 3.2.3).

Conservation Watershed Network

In addition to the required identification of priority watersheds, the Forest has identified a conservation watershed network. The goal of the network is to sustain the integrity of key aquatic habitats to maintain the long-term persistence of native aquatic species. In particular, the purpose of the conservation watershed network is to help conserve bull trout and other native fish by identifying areas where cold water is modeled to occur into the future, providing a long-term conservation strategy for areas of cold-refugia in the face of climate change. Conservation watersheds are intended to maintain multiscale connectivity for at-risk fish and aquatic species by identifying important areas needed for conservation (currently in good condition) and an areas in need of restoration, thus ensuring ecosystem components needed to sustain long-term persistence of species will remain functioning on the landscape (FEIS, introduction to section 3.2 and section 3.2.13).

Multiscale analysis was used to develop the Forest's conservation watershed network, starting with the scale of the Columbia River Basin. The Flathead River Basin is located along the spine of the continent and is predicted to provide cold water into the future due to the high elevation and slow climate velocities of mountain streams (D. J. Isaak et al., 2016). Next, the climate shield model (Daniel J. Isaak et al., 2015) and the temperature model (L. A. Jones, Muhlfeld, Marshall, McGlynn, & Kershner, 2014) across the Flathead River basin (6th hydrologic unit code) were used to determine where cold water is predicted to persist into the future in the face of climate change. The modeling indicated that cold water is predicted to persist in many of the Forest's watersheds containing local bull trout populations that had been previously identified as priority watersheds under INFISH. Therefore, the Forest's priority bull trout watersheds and those watersheds designated as critical habitat by the USFWS (75 FR 63898) were carried over into the Forest's conservation watershed network (revised plan, p. C-11).

Objectors allege that because there are not standards "in excess of those for other riparian areas to offer them further protection in recognition of their special status and importance", the plan is insufficient. However, this misinterprets both the intent of the revised plan's management direction for all watershed conditions and the conservation watershed network-specific plan components. I will try to clarify.

As indicated previously, the full suite of watershed, conservation watershed network, and riparian management zone plan components including desired conditions, objectives, standards, and guidelines is designed to apply forestwide, inside and outside of priority watersheds and the conservation watershed network. The identification of the conservation watershed network is intended to help focus active restoration activities and provide added visibility for conservation and connectivity of aquatic species. Watersheds that support bull trout are a priority for restoration, using the priority watershed designation under the watershed condition framework and the conservation watershed network. The conservation watershed network plan components include a desired condition for high quality habitat and functionally intact ecosystems, contributing to and enhancing the conservation and recovery of specific threatened or endangered fish species or aquatic species of conservation concern, and provide high water quality and quantity. There are two trackable objectives that prioritize transportation-system related restoration work. As those objectives indicate road-related restoration work will be a likely activity, there is a conservation watershed network guideline to add an additional constraint beyond the forestwide standards and guidelines to ensure the actions taken to achieve the objectives contribute to achieving the conservation watershed network desired condition.

Plan Direction for Priority Watersheds in Revised Plan Compared to INFISH

Objectors allege that the plan direction diminishes the value of conservation watersheds compared to the "priority watersheds" in INFISH because it lacks standards and guidelines "in excess of those for all other riparian areas". They point to "at least six additional [INFISH] standards and guideline that also applied to priority watersheds." They indicate that because the plan components add "very little additional protection for conservation watersheds", their only "possible value is in prioritizing restoration". They see the value of that difference as limited because it's "dependent on funding, and because priorities are also driven by priority watersheds, which are subject to change and may prioritize other purposes over bull trout."

When I review the INFISH priority watershed "additional" standard and guidelines, I find that some require analysis, rather than identify methods to constrain management actions to protect riparian resources. For example, TM-1 states: "for priority watersheds, complete watershed analysis prior to salvage cutting in RHCAs" and RF-2 states: "completing watershed analyses prior to construction of new roads or landings in RHCAs within priority watersheds." As indicated previously, plan components that direct analyses are not consistent with handbook direction at FSH 1909.12, which states that standards and guidelines "should not direct or compel process such as analysis, assessment, consultation, planning,

inventory, or monitoring” (22.13(4) and 22.14(4)). See my response to *Issue Summary – Watershed and Multiscale Analysis* for more discussion around the issue.

However, the revised plan includes guideline FW-GDL-IFS-10, which is comparable to INFISH RF-2d, and requires the Forest to route new or reconstructed roads away from potentially unstable channels, fills, and hillslopes. This guideline would reduce the amount of sediment delivered to streams both directly off roads and from gullies and mass failures associated with unstable areas adjacent to streams (FEIS, section 3.2 p 119)

INFISH RF-2(f) does constrain management per the 2012 planning rule component definition by prohibiting sidecasting of road material in RHCA in priority watersheds. It has been included as a standard in the revised plan for *all* riparian management zones, not just those in priority watersheds (FW-SDT-IFS-07). The revision is intended to expand benefits to riparian and water resources to a larger geographic area, thereby reducing the likelihood of road failures and mass wasting into waterbodies across the entire Forest (FEIS, section 3.2.8)

INFISH RF-3 is a standard/guideline that directs prioritization of road construction, reconstruction, or stabilization work to avoid adverse effects on inland native fish within priority watersheds. However, as indicated in the discussion of road management objections issues, objectives at FW-OBJ-WTR-01 through 04, FW-OBJ-CWN-01 and 02, and FW-OBJ-IFS-01 through 06, and GA-SV-OBJ-04 describe measureable and time-specific actions the Forest would be taking over the life of the forest plan to maintain or improve watershed conditions. This is an appropriate update of the INFISH RF-3 plan component under the 2012 planning rule to carry forward the conservation strategy of INFISH.

It’s important to note that objectives are a plan component that describe a “measurable, and time-specific statement of a desired rate of progress toward a desired condition or conditions” (36 CFR 219(e)(1)(ii)). They “help set the basis for priority areas or activities, with a timing expectation that near-term objectives would be completed first, depending on funding” (FSH 1909.12 Ch. 22.12). The analysis demonstrates these objectives, and the identification of the conservation watershed network provides strategic improvements to INFISH’s priority watershed framework.

Another change of note is the revision of riparian management zone widths for category 4. Under INFISH, the interim RHCA widths for category 4, seasonally flowing or intermittent streams, wetlands less than 1 acre, landslides, and landslide-prone areas were 100 feet (or the height of one site-potential tree, whichever greater) in priority watersheds, but only 50 feet in non-priority watersheds (or half the height of a site-potential tree). In the revised plan, the riparian management zone width for *all* seasonally flowing or intermittent streams, and lands identified as potentially unstable is greater of 100 feet or the height of one site potential tree. Ponds, lakes, reservoirs, and wetlands less than 0.5 acres also have a 100-foot RMZ, and those great than 0.5 acres have a 300-foot RMZ. This increase in riparian management zone widths over INFISH’s interim RHCA widths results in additional protection for aquatic habitats forestwide.

Conclusion

After reviewing the plan and final EIS, I find the conservation watershed network provides a network of watersheds designed to emphasize conservation of westslope cutthroat and bull trout by protecting and restoring components, processes, and landforms that provide quality habitat. The priority watersheds from INFISH and watersheds designated as critical habitat by the USFWS (75 FR 63898) are included in the Forest’s conservation watershed network, and therefore they do not “lose protection” in the revised plan.

An objective of the watershed conservation network is to identify and conserve watersheds that will have cold water to support native fish into the future in the face of climate change. Restoration activities would focus on stormproofing the existing road network in light of climate change (FW-OBJ-CWN-01 and 02).

This is a benefit to native fish that is not present under the current INFISH direction amended to the 1986 plan.

In addition, as required by the 2012 planning rule, I found the revised plan includes priority watersheds properly identified using the watershed condition framework (USDA 2011). The two Class 2 watersheds with bull trout are included and rated as the highest priority for restoration of the Class 2 watersheds. Under the revised plan, the highest priority for restoration actions would be projects within the conservation watershed network to benefit native fish.

Issue Summary – Watershed and Multiscale Analysis

Objectors feel that the revised plan should require completion of a watershed analysis prior to implementing project activities, as in INFISH.

Objectors

WildEarth Guardians, Defenders of Wildlife

Objectors' Proposed Remedies

“The plan must require multiscale analysis prior to implementing projects in certain circumstances.”

“The Forest Plan should reinstitute the requirements of preparing watershed analyses and should ensure that any reference populations it uses in any analyses represent a reasonable goal.”

Background

Under the INFISH, “watershed analysis” is required for some management activities within the riparian habitat conservation areas (RHCA) in priority watersheds. INFISH defines watershed analysis as a systematic procedure for determining how a watershed functions in relation to its physical and biological components. Generally, watershed analysis would be initiated where the interim RMOs and the interim RHCA widths do not adequately reflect specific watershed capabilities, or as required in the standards and guidelines before specific projects are initiated.

During project-specific analysis or watershed analysis, managers can determine the factors influencing inland native fish and modify the INFISH requirements to the local situation. For example, National Forest managers are encouraged to establish site-specific RMO's through watershed analysis or site-specific analysis. The site-specific widths of RHCAs may be increased where necessary to achieve riparian management goals and objectives, or decreased where interim widths are not needed to attain RMOs or avoid adverse effects.

In addition, two INFISH standards and guidelines require watershed analysis prior to management within the RHCAs of priority watersheds.

- TM-1(a) – For priority watersheds complete watershed analysis prior to salvage cutting in RHCAs.
- RM-1 – Complete watershed analysis prior to construction of new recreation facilities in Riparian Habitat Conservation Areas within priority watersheds.

The 2012 planning rule at CFR 36 219.8 (a)(3) requires plan components, including standards or guidelines, to maintain or restore the ecological integrity of riparian areas in the plan area, including plan components to maintain or restore structure, function, composition, and connectivity. This section goes on to state in (ii) that plans must establish width(s) for RMZs around all lakes, perennial and intermittent streams, and open water wetlands, within which the plan components required by paragraph (a)(3)(i) of this section will apply, giving special attention to land and vegetation for approximately 100 feet from the edges of all perennial streams and lakes.

The 2012 planning rule defines project-level consistency with all plan components at 36 CFR 219.15(d) and states, “project or activity approval document must describe how the project or activity is consistent with applicable plan components”.

FSH 1909.12 chapter 22 describes the requirements for integrated plan content, including direction for developing plan components. Specifically for standards and guidelines, the planning rule at 36 CFR 219.7(e)(1)(iii) and (iv) indicates they are constraints on project and activity decisionmaking, established to help achieve or maintain the desired condition or desired conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements. Further clarification at FSH 1909.12 22.13(1) and 22.14(1) indicates standards and guidelines “place design or operational constraints on projects and activities.”

The difference between standards and guidelines are that a guidelines “allows for departure from its terms, so long as the purpose of the guideline is met” (36 CFR 219.7(e)(1)(iv)).

As requirements for “analysis” do not place design or operational constraints on management actions, at FSH 1909.12 22.13(4) and 22.14(4), indicate standards and guidelines “should not direct or compel processes such as analysis, assessment, consultation, planning, inventory, or monitoring.” However, it adds, “such processes that could be used can be part of other plan content such as management approaches”.

Management approaches are optional plan content described at 36 CFR 219.7(f)(2) and at FSH 1909.12 chapter 22.4. Although optional plan content is not plan components with mandatory consistency requirements, it can facilitate transparency and give the public and governmental entities a clear understanding of the plan and how desired plan outcomes would likely be delivered.

If used, management approaches would describe the principal strategies and program priorities the responsible official intends to employ to carry out projects and activities developed under the plan. The management approaches can convey a sense of priority and focus among objectives and the likely management emphasis. Management approaches should relate to desired conditions and may indicate the future course or direction of change, recognizing budget trends, program demands and accomplishments. Management approaches may discuss potential processes such as analysis, assessment, inventory, project planning, or monitoring.

Response

Objectors allege the plan does not “require sufficient analysis before actions can be undertaken in RMZs or the CWN.” One takes issue with the sufficiency of multiscale analysis over INFISH’s watershed analysis because the multiscale analysis described in appendix C of the revised plan “does away with the data gathering requirement from watershed analysis.” Both objectors take issue with the “voluntary” nature of the multiscale analysis. They find the plan insufficient because it does not include a standard or guideline requiring watershed analysis prior to implementing projects.

As described in previous responses to watershed objection issues, the revised plan has appropriately updated INFISH’s interim direction with a suite of integrated plan components and plan content per the 2012 planning rule requirements using updated scientific information and 20 plus years of PIBO monitoring data. I find this is also true regarding the changes from INFISH’s watershed analysis requirements.

The revised plan replaces the “interim” RHCA widths with established riparian management zones widths using best available scientific information, negating the need for watershed analysis to determine site-specific widths. In addition, the revised plan further delineates a more protective category as the “inner riparian management zone.” The inner riparian management zone provides for the protection of important stream and riparian processes such as shade, bank stability, and large wood recruitment, and the best

available scientific information indicates that these processes are protected within one tree length (FEIS, appendix 8, p. 8-78).

It then establishes specific constraints on management activities in the form of standards and guidelines, clarifying and expanding protections under INFISH. In particular, unlike INFISH which allowed timber management within the full RHCA as long as the activities did not “retard attainment of RMOs” (INFISH TM-1(b)), the revised plan establishes an inner RMZ where vegetation management shall only occur “in order to restore or enhance aquatic and riparian-associated resources” (FW-STD-RMZ-06), allowing for three limited exceptions if the riparian resources are maintained. As it relates to this objection issue, watershed analysis was not required for timber harvest within the full RHCA, unless it was salvage harvest within priority watersheds (per TM-1(a)). However, multiscale analysis in the revised plan is a management approach to be used at the project level if activities are being proposed within a riparian management zone as described in appendix C of the revised plan (p. C-11).

Per the second INFISH standard/guideline that requires watershed analysis prior to construction of new recreation facilities in RHCAs within priority watersheds (RM-1), I find the revised plan components equally protective. Forestwide guideline FW-GDL-REC-2 states: “To protect resources, new solid and sanitary waste facilities should be located outside of the inner riparian management zone.” And forestwide guideline FW-GDL-REC-06 states: “To protect fishery resources and riparian-associated plant and animal species, new developed recreation sites should not be located within the inner riparian management zone except when they are related to health and safety or water, such as boat ramps and fish platforms. Structures should be developed with a Forest aquatics specialist so that fisheries and riparian-associated plant and animal species are protected.”

The forest plan also includes an objective (FW-OBJ-REC-01) “to rehabilitate eight to ten dispersed recreation sites on the Forest with erosion or sanitation issues or other adverse effects on natural resources”. Appendix C describes management approaches for this objective, which include addressing dispersed campsites with erosion or sanitation issues within bull trout habitat and taking actions such as hardening sites or placing barriers to control access to riparian management zones where existing developed or dispersed recreation sites are negatively impacting aquatic resources and riparian resources. In severe situations, the recreation management approach may be to close, rehabilitate, or relocate the developed or dispersed recreation site outside of the riparian management zone.

This recreation plan content in the form of guidelines that constrain management activities, an objective describing a measurable outcome, and optional management approaches provide an integrated framework to help achieve or maintain the watershed and riparian management zone desired conditions per the 2012 planning rule plan requirements. Although plan components do not require a specific watershed analysis per the direction in FSH 1909.12, multiscale analysis in the revised plan is a management approach to be used at the project level if activities are being proposed within a riparian management zone, as described in the timber harvest discussion above.

As to comparing multiscale analysis to watershed analysis, it is important to note that watershed analysis under the INFISH was part of the interim strategy to gather information and data to inform riparian habitat management. The two decades of monitoring per the PACFISH/INFISH Biological Opinion (commonly referred to as PIBO monitoring) has produced results that can be effectively used in a multiscale analysis. Multiscale analysis is a key planning principle in the updated Interior Columbia Basin Strategy, Interagency Memorandum of Understanding: A Strategy for Applying Knowledge Gained by the Interior Columbia Basin Ecosystem Management Project to the Revision of Land Use Plans and Project Implementation (USDA-USDI-EPA-NMFS, 2013), which develops an aquatic and riparian framework (FEIS, appendix 8, p. 8-61).

Geographic data sets and analyses have dramatically progressed since the early watershed analysis efforts under the INFISH, providing much more analysis capability today. Multiscale analysis seeks to focus

more on the integration of existing information and “provides a basis for integration and prioritization of conservation measures for wide-ranging species” (USDA-USDI-EPA-NMFS, 2013). Multiscale analysis does not require new data gathering or data generation, however, it does not discount collection of new data should that be deemed important. Rather, multiscale analysis generally uses available data summaries from relevant resources, sometimes at different scales, to consider multiple management objectives for the management area. The analysis considers existing conditions, factors limiting aquatic species populations, resource risks, restoration options, and available recovery planning information. Various scales of data help place management issues and opportunities into a meaningful context. The work mirrors the sensitivity and complexity of the issues being addressed (revised plan, p. C-10).

Although the final EIS, planning record, and plan adequately describe the purpose and benefits of multiscale analysis, the management approach section of appendix C does not provide clear examples of when it would be beneficial for assessing project proposals with RMZs. Additional clarification would help ensure future implementers used this tool when appropriate.

Conclusion

I find the Forest appropriately updated watershed analysis with the multiscale analysis framework from the updated Interior Columbia Basin Strategy. A multiscale analysis looks at multiple scales and multiple lines of evidence at the reach, watershed, and basin scales when evaluating actions at the project level. It also incorporates conservation strategies and the recovery unit implementation plan for bull trout (FEIS, appendix 8, p. 8-61). This is an appropriate update to INFISH’s interim direction using the best available scientific information.

Although multiscale analysis is not required within a standard or a guideline, the revised plan identifies it as a tool that considers the evaluation of existing conditions, factors limiting aquatic species populations, resource risks, management needs, restoration opportunities, and interagency coordination. To aid in understanding of this tool, I am instructing Forest Supervisor Weber to clarify when it would be appropriate to use this tool in appendix C.

Issue Summary – Failure to Demonstrate an Improved Conservation Strategy

Objectors contend that mandatory direction contained in INFISH has been made discretionary under the new forest plan.

Objectors

Defenders of Wildlife, WildEarth Guardians

Objectors’ Proposed Remedies

“Improve conservation certainty by improving discretionary guidelines and standards that contain language eliminating their mandatory character. This would include not removing any mandatory requirements/language from INFISH.”

“Because the FEIS and Forest Plan grossly fail to protect bull trout and improve upon INFISH’s components in ways that will aid bull trout, the Forest Plan’s current subjective, flexible, aspirational, or vague Forest Plan components should be changed to make them coextensive with, or in excess of, all mandatory requirements from INFISH in terms of stringent conservation measures.”

“While standards and guidelines may have been combined in INFISH, there is only one interpretation for each standard and guideline that depends on its precise wording. If the Forest wants to improve on INFISH, but determine that “what is most effective” in achieving “a desired condition” is different from what was in INFISH, it needs to document that rationale, including supporting science.”

“The Forest must describe the actual effects of what plan components would do.”

“Tighten up the desired conditions, objectives, and standards to ensure that they are defined clearly enough to serve as guides for future actions across the Forest. Ensure that the bull trout protections the Forest adopts exceed the insufficient measures from INFISH.”

Background

The 1986 forest plan was amended by the Inland Native Fish Strategy (INFISH) in 1995. INFISH was designed to maintain populations of inland native fish by reducing negative impacts to aquatic habitat (USDA, 1995a). The implementation of INFISH riparian management objectives, standards, guides, and monitoring requirements has contributed to the recovery of aquatic habitats. INFISH was originally expected to last from 18 months to 3 years while an effort similar to the Northwest Forest Plan was completed for the Interior Columbia River Basin. That strategy, the Interior Columbia Basin Ecosystem Management Project (ICBEMP, 1996, 2014), was never completed, but science from the effort was used to inform this plan revision. The management direction in the revised plan places greater emphasis on meeting improved and more refined desired conditions, and standards and guidelines.

Numerous changes to policy, best available scientific information, and the condition of listed species have occurred since first implementing INFISH. Advances in knowledge regarding physical habitat and ecological interactions at many scales and across scientific disciplines have been made, as well as advances in spatial database management.

Response

As indicated with the preceding objection issues, several objectors raised concerns with the change from the 1995 INFISH strategy to the revised plan direction. They contend the Forest did not demonstrate that the plan would lead to improved and more efficient habitat management. One objector concludes their objection with the following:

“The Forest is welcome to add to the INFISH strategy or make it more specific to the Flathead watersheds. However, it may not remove conservation measures or replace them with less specific or certain measure without clearly demonstrating that new scientific information provides a rationale for the changes providing greater protection of the species. The reduced protection provided by the revised plan would be insufficient to comply with NFMA”

From their point of view, the revised plan diminishes the conservation strategy provided by INFISH by removing or changing some of its core components without adding equal or better plan components. They contend that the revised plan modifies the management of the conservation watershed network to provide less protection for at-risk species, and that it eliminates requirements for analysis at any scale prior to proposing management actions that may adversely affect at-risk species. They also contend that the revised plan eliminates the measurable objectives for restoration of key ecosystem characteristics for aquatic habitat and that the standards and guidelines have been modified to provide less certainty about the degree of protection afforded aquatic species under the revised plan. Finally, objectors allege that the Forest has not provided the best available scientific information necessary to justify the rationale for changes to INFISH.

The resolution meeting discussions were helpful in clarifying the objectors’ point of view and interpretation of the change from INFISH to the revised plan direction. One objector indicated that in order to change management direction from INFISH, the Forest needed to demonstrate an improvement in the conservation strategy, rather than just demonstrate the new plan direction complied with law, regulation, and policy and continued to support species conservation per best available scientific information.

In developing a proposed plan revision, Forest Supervisor Weber was required to review relevant information from the assessment and monitoring to identify a preliminary need to change the existing plan and to inform the development of plan components and other plan content (219.7(c)). FSM 1920.3 indicates it is the Agency's policy to use the current land management plan as a starting point for revision, and make changes based on a need to do so.

The National Forest Management Act of 1976 requires plans to "provide for diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives" (section 6). Specific to this issue, the 2012 planning rule requires plan components, including standards or guidelines, to maintain or restore ecological integrity, water quality, water resources, and riparian areas (36 CFR 219.8(a)) and to maintain or restore the ecological integrity of terrestrial and aquatic ecosystems and watersheds in the plan area (36 CFR 219.9(a)). Specific to at-risk species such as bull trout, the plan components must provide the ecological conditions necessary to contribute to the recovery of federally listed threatened and endangered species (36 CFR 219.9(b)).

The ESA requires the Forest Service to seek to conserve endangered species and threatened species (section 2), establish and implement a program to conserve fish, wildlife, and plants, including federally listed species (section 5), and ensure that actions authorized, funded, or carried out by them are not likely to jeopardize the continued existence of any threatened or endangered species or result in the destruction or adverse modification of their critical habitats (section 7) (16 U.S.C. 1531).

My review finds the plan content meets these requirements. In addition, as demonstrated in the final EIS and described in the point-by-point objection issue response provided in this section, the Forest has updated INFISH per the 2012 planning rule requirement in such a way that provides additional conservation protection for bull trout. Therefore, per the objectors' request, demonstrates improvement and not just compliance.

Overall, my review found the aquatic components in the proposed plan were carried forward from INFISH, except when best available scientific information indicated that modification was prudent. Riparian goals and the grouped standards and guidelines were revised as desired conditions, objectives, specific standards or guidelines, monitoring, or other plan content in the form of priority watersheds or management approaches as appropriate per the 2012 planning rule integrated plan content requirements.

Although some objectors view desired conditions, objectives, and guidelines as "discretionary" and thus providing lesser protections than INFISH, I do not agree with this interpretation and believe it to be inaccurate. See my response *Issue Summary – Plan Component Sufficiency* regarding requirements for plan consistency during project-level planning.

Furthermore, the final EIS (section 3.2) describes the reasons for developing a new framework for maintaining the ecological integrity of watersheds. The analysis describes the scientific information supporting the modifications in the final EIS (FEIS, sections 1.4.3, 2.4.6, 3.2 1; revised plan pp. C-8 through 19. The plan provides a question and indicator based process (CFR 36 219.12(a)(1-2) for documenting outcomes from executing management under the revised plan (revised plan chapter 5) and continues and build from a monitoring process where we will be able to track progress in terms of instream habitat conditions.

Another objector indicates the final EIS "fails to describe the actual effects of what plan components would do", taking exception to the descriptions of what plan components are "designed" to do. However, as indicated in final EIS section 3.1, the final EIS is a programmatic document. It discloses the environmental consequences on a large scale, at the planning level. This is in contrast to analyses conducted for site-specific projects. The final EIS presents a programmatic action at the Forest level of analysis but does not predict what will happen each time the standards and guidelines are implemented. Therefore, the analysis indicates what the integrated plan content is designed to achieve while guiding

future decision-making, rather than describing plan component-specific direct effects of implementation. As indicated in the 2014 CEQ Memorandum for Heads of Federal Departments and Agencies regarding Effective Use of Programmatic NEPA Reviews, “Programmatic NEPA reviews address the general environmental issues relating to broad decisions, such as those establishing policies, plans, programs, or a suite of projects, and can effectively frame the scope of subsequent site- and project-specific Federal actions.” “Because impacts in a programmatic NEPA review typically concern environmental effects over a large geographic and/or time horizon, the depth and detail in programmatic analyses will reflect the major broad and general impacts that might result from making broad programmatic decisions.” Although programmatic NEPA should still “contain sufficient discussion of the relevant issues and opposing viewpoints to enable the decision maker to take a “hard look” at the environmental effects and make a reasoned choice among alternatives”, CEQ indicates courts have recognized “the difficulty in predicting the level of activity that will occur and that it may not be possible to thoroughly analyze the environmental effects of, and the resource commitments involved in, such a broad proposed activity.”

As indicated in the methodology for the Soils, Watersheds, Aquatic Species, Riparian Areas, and Wetlands section (FEIS, section 3.2), the analysis takes a programmatic look at the outcomes that might result from implementing the proposed management direction in each alternative over the life of the forest plan.

For estimating the effects at the programmatic forest plan level, the assumption has been made that the kinds of resource management activities allowed under the alternatives are reasonably foreseeable future actions to achieve the goals and objectives. However, the specific location, design, and extent of such activities are generally not known because these decisions are made at the project level based on a site-specific analysis. Therefore, the discussions here refer to the potential for effects to occur and are in many cases only estimates. The programmatic effects analyses are useful when comparing and evaluating alternatives but are not intended to be applied directly to specific locations on the Forest.

Since the site-specificity of future activities is not known at the programmatic forest plan level, the potential spatial and temporal effects to water quality cannot be attributed to any specific watershed, nor can quantitative estimates of potential effects to aquatic resources be determined (such as changes in water quantity). Broad-scale estimated effects and trends related to hydrologic function and watershed processes for National Forest System lands have been qualitatively estimated. Cumulative effects to water quality are described in terms of their potential to generally affect trends on the subwatershed to basin scale.

Section 3.2 of the final EIS analyzes the effects of forest management activities on water and fisheries resources by alternative. This provides insight into how plan components will guide management activities and how they are anticipated to lead to improved habitat conditions for bull trout and potentially bull trout populations.

Conclusion

I find that Forest Supervisor Weber appropriately complied with 36 CFR 219.8 and 219.9 by including plan components, including standards and guidelines, to maintain or restore the ecological integrity of riparian areas in the plan area and support recovery of bull trout and bull trout critical habitat. The plan and the programmatic analysis in the final EIS and record demonstrate that Supervisor Weber appropriately updated the INFISH management direction with current and evolving science to insure aquatic sustainability, improving the INFISH conservation strategy.

Although I find that the revised plan provides greater conservation protection than INFISH, I would like to note that there is nothing in the NFMA, the 2012 planning rule, the ESA, or other regulation and policy that indicates plan direction can only be revised if those changes reflect a *better* conservation strategy. Rather the Agency obligation is to work toward species conservation in the context of the Multiple-Use Sustained-Yield Act of 1960 (16 U.S.C. 528-531) and the requirements described in the response above.

Issue Summary – Northern Region Aquatic and Riparian Conservation Strategy

The objector contends that it is not appropriate to replace riparian goals under INFISH with the Northern Region Aquatic and Riparian Conservation Strategy.

Objector

WildEarth Guardians

Objector's Proposed Remedy

“The Forest Service must complete and distribute the ARCS before it can incorporate and rely on it. The Forest Service must base its decision on the best available science and must disclose its basis to the public.”

Background

FSM 1921.11 through 1921.13 describe aspects of responsibility and oversight that includes a requirement for Regional Office staff to work with Supervisor's staff by assisting in the planning process and providing oversight throughout the planning process to support consistency and accountability among planning efforts.

Response

An objector challenged the Forest Service's incorporation and integration by reference of the Northern Region Aquatic and Riparian Conservation Strategy (ARCS), which the Forest Service has been developing to update the INFISH for maintenance and restoration of watersheds in the Forest.

As indicated in the response to comments in the final EIS (appendix 8, p. 8-80), the ARCS is still in development. Objectors take exception to this because the NEPA's implementing regulations prohibit incorporation by reference unless the material to be incorporated is “reasonably available for inspection by potentially interested persons within the time allowed for comment” (40 CFR 1502.21). Their perception is that the ARCS is not available for inspection because a “final version does not even exist yet.”

However, the objector misinterprets the ARCS as a stand-alone strategy providing static direction separate from each plan revision's public engagement efforts per the 2012 planning rule and the NEPA. As indicated on the Northern Region website, the ARCS is being developed to provide guidance and facilitate consistency among forests undergoing plan revision. It's a compilation of the best available scientific information intended to support a template of plan components for inclusion in a proposed plan, subject to a revision's public engagement and programmatic analysis under the NEPA. Each subsequent plan revision's analysis, public engagement, and regulatory agency consultation informs continual improvement and modification of the strategy.

The ARCS documentation is incorporated in the plan and final EIS, and the current draft of the guidance is included as a planning record document. Information regarding the ARCS is also available to the public via the Northern Region website.

Conclusion

Per my oversight responsibilities to coordinate planning efforts among adjoining units (FSM 1921.04a), I have asked the revision forests and regional office staff to work together, with public engagement, regulatory agency consultation, and cooperation with state, tribe, and local governments, to continue to work on and improve a regionally-consistent aquatic and riparian conservation strategy to guide plan development. This is, and will continue to be, shared with the public and agency partners.

Bull Trout

Issue Summary – Supporting Recovery per Planning Rule

Objectors contend that without numerical riparian management objectives, the plan components no longer provide the ecological conditions necessary to contribute to the recovery of bull trout or maintain a viable population.

Objectors

Defenders of Wildlife, WildEarth Guardians

An Objector's Proposed Remedy

“Because the FEIS and Forest Plan grossly fail to protect bull trout and improve upon INFISH’s components in ways that will aid bull trout, the Forest Plan’s current subjective, flexible, aspirational, or vague Forest Plan components should be changed to make them coextensive with, or in excess of, all mandatory requirements from INFISH in terms of stringent conservation measures. The Forest should also look at other ways to use the Forest Plan to ensure that bull trout recover in the Forest.”

Background

Per 36 CFR 219.8 The plan must include plan components, including standards or guidelines, to maintain or restore the ecological integrity of terrestrial and aquatic ecosystems and watersheds in the plan area, including plan components to maintain or restore structure, function, composition, and connectivity; as well as soil, water, and riparian areas. In addition per 36 CFR 219.9, the plan must include plan components, including standards or guidelines, to maintain or restore the diversity of ecosystems and habitat types throughout the plan area, and where necessary include species-specific plan components to provide the ecological conditions necessary to contribute to the recovery of federally listed threatened species like bull trout.

Response

Objectors allege the revised plan generally fails to adequately address threats to bull trout and to adequately protect the species from ongoing harm. They find that the revised plan’s “discretionary direction fails to achieve even INFISH’s level of protection for inland native fish.” Thus, they conclude, “the Forest Plan will thus result in reduced aquatic ecosystem integrity and bull trout viability”.

Sections 3.2.8 and 3.2.9 of the final EIS analyze the effects of forest management activities on water and fisheries resources by alternative. This provides insight into how plan components will guide management activities and how they are anticipated to lead to improved habitat conditions for bull trout and potentially bull trout populations. The species and primary constituent elements for bull trout “critical habitat” were also analyzed in the Forest’s biological assessment (Kuennen et al., 2017a) and the USFWS biological opinion (USFWS, 2017) as part of the ESA section 7 consultation. Similarly, baseline conditions for bull trout habitat and populations are presented in the Western Montana Bull Trout Conservation Strategy (USDA-USFWS 2013), refined with best available data (Van Eimeren, 2017), and analyzed as part of the biological assessment and biological opinion. The draft record of decision discloses the outcomes of this consultation, including findings and requirements laid out in the biological opinion and the conclusion that the plan will provide for habitat conditions to continue to contribute the recovery of bull trout.

Although INFISH was intended to be a short-term strategy (18 months to 3 years), it was in place for over 20 years. The PACFISH/INFISH biological monitoring strategy (PIBO) that resulted from the strategies and associated biological opinions provides an ongoing rigorous and systematic effectiveness monitoring endeavor that has demonstrated favorable programmatic outcomes to native fish habitat at multiple scales

(Meredith et al. 2012 and Archer and Ojala, 2018). The soil, water, and fish components of the revised plan refine and build off INFISH, and analysis suggests favorable outcomes will continue. Plan component additions and refinements include the watershed condition framework and watershed conservation network, a collection of watersheds where management is designed to provide long-term protection and connectivity and enhance the survival of native fish. Plan direction incorporates strategies to build resilience to changing climate, maintain species diversity, and support species recovery. This includes plan direction for the conservation watershed network, additional widths for in riparian management zones for some intermittent streams and wetlands areas, and quantified objectives for road and floodplain treatments (maintenance, decommissioning, connectivity, and storm-proofing as well as riparian areas restored).

Thomas 2017 provides a summary of the best available scientific information related to riparian management zones, discussing what we have learned and where controversy remains related to their management. This was foundational to plan component modifications herein that included a shift from RHCA to RMZs, refinements to standards and guidelines, and a shift from site-specific (Riparian Management Objectives or RMOs) to a process-based approach. This approach still links habitat conditions such as pools, wood, stream temperatures, and fine sediment amounts and distributions (Thomas 2017). See the appendices C and E of the revised plan; and final EIS sections 1.4.3, 3.2, 3.2.9, and 3.2.13, and appendix 8 pp. 8-77 through 8-88, 8-95 through 8-99, and 8-248 through 8-289.

The additional conservation measures in the revised plan compared to INFISH are discussed in more detail in the responses in the Watershed, Riparian, and Aquatic Habitat section.

Conclusion

I find Forest Supervisor Weber appropriately concludes that that the plan is designed to provide the ecological conditions consistent with best available scientific information necessary to contribute to the recovery bull trout and habitat conditions over the life of the plan. (See also *Issue Summary – Riparian Management Objectives* for additional information related to this response.)

Issue Summary – Endangered Species Act

Objectors contend that the Forest Service fails to ensure the revised plan complies with the ESA regarding impacts to bull trout and its critical habitat.

Objectors

WildEarth Guardians, Defenders of Wildlife, Stephen Braun

An Objector's Proposed Remedy

“Refrain from any final decision related to the revised plan unless and until the flaws related to Section 7 consultation identified above have been addressed in a revised bull trout BiOp.”

Background

The ESA requires Federal agencies, in consultation with the USFWS, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species.

Under 36 CFR 219.9, the plan must include plan components to maintain or restore the ecological conditions necessary to contribute to the recovery of federally listed threatened species, such as bull trout. These plan components may apply to ecosystems or, if necessary, may be species-specific.

Also, section 2672.2 of the Forest Service Manual states: “The Forest Service must manage habitats at levels that accomplish the recovery of federally listed species so that protective measures under the Act are no longer necessary.”

Response

A portion of the objectors' allegations for failing to support bull trout recovery is related to their contention that the changes from INFISH in the revised plan fail to provide for the species persistence. See the issue summaries for *Watershed, Riparian, and Aquatic Habitat* in the preceding section for my detailed response to those allegations. This response will address objector's concerns regarding the Forest's obligations under section 7 of the ESA.

The revised plan and associated biological assessment for bull trout and subsequent biological opinion from the USFWS demonstrate compliance with the ESA via formal consultation per section 7(a)(1) (Kuennen et al., 2017a; USFWS, 2017). Consultation outcomes are also articulated in the draft ROD (pp. 28, 36-39). The USFWS found no jeopardy to the species or adverse destruction or modification to critical habitat using their hierarchical analysis. The biological assessment outlines the specific reasons why implementation of the revised plan may have short-term adverse effects on these species and critical habitat but still result in overall net benefits, and the USFWS agrees so long as plan components and the biological opinion reporting and conservation recommendations are followed. Examples of components that are expected to actively contribute to bull trout benefits include: identification of watershed conservation networks and associated actions that will contribute to bull trout conservation and recovery and climate change adaptation (FW-OBJ/GDL-CWN); additional acres placed in riparian management zones, especially related to intermittent channels and wetlands (FW-STD-RMZ); and quantified objectives for road and floodplain treatments (maintenance, decommissioning, connectivity, and storm-proofing as well as riparian areas and stream channels restored) (FW-OBJ-WTR 1-4; FW-OBJ-IFS; and FW-OBJ-RMZ). All of these were programmatically consulted on.

The biological opinion also incorporates the Forest's Culvert Monitoring Plan Version 1.0 as a replacement to previous terms and conditions from past biological opinions (see Kuennen et al., 2017a; table 1 in appendix D; USFWS 2017b) into a reporting requirement per the new biological opinion. This systematic process will ensure that road segments behind gates and barriers are inspected for prism and stream crossing problems and thus prioritized for remedy and/or restoration in a timely fashion. The USFWS identifies working with partners toward bull trout recovery as a conservation recommendation incorporated into the Plan's draft ROD. This includes strategic and opportunistic use of the Western Montana Bull Trout Conservation Strategy (USFS, 2013) in conjunction with the USFWS' Bull Trout Recovery Plan and the associated Columbia River Headwaters Recovery Unit Implementation Plan (USFWS 2015, 2015b). The USFWS concludes these plan elements and components are expected to contribute to recovery of the species per section 7(a)(1) of the ESA (USFWS, 2017).

Lastly, this plan steps up formalized monitoring (Mon-WTR-01 to 07) that is in itself multi-scaled starting with PIBO monitoring protocols and then stepping down to barrier, road, crossing upgrades, and channel and riparian improvements coupled to the biological outcomes. Monitoring will be conducted in partnership with State and Federal partners, and results will be used in adaptive management to track progress and outcomes from plan implementation.

One objector alleges that the 2017 Biological Opinion improperly authorizes modifications to culvert monitoring plans required under the terms and conditions of separate, pre-existing biological opinions issued for activities unrelated to this forest plan revision. However, nothing under the ESA prevents the USFWS from consolidating past biological opinion road-crossing-related terms and conditions from projects under the 1986 forest plan into a systematic forest-wide monitoring effort under the revised plan.

One of the objectors expressed concern regarding the draft ROD's description of the conservation recommendations (p. 39) from the biological opinion. They appear to misinterpret these recommendations as mandatory terms and conditions. However, my review finds the draft ROD is aligned with the biological opinion and reflects the USFWS's conclusion that the revised plan components can be

considered elements of a program for the conservation of endangered species and threatened species, as described in section 7(a)(1) of the Endangered Species Act.

Conclusion

I find Forest Supervisor Weber appropriately consulted with USFWS on plan elements and determined the plan will not jeopardize the continued existence of bull trout or result in the destruction or adverse modification of bull trout designated critical habitat. The BO concludes that plan components and anticipated actions under the plan are designed to provide the ecological conditions to contribute to conservation and recovery of bull trout and protect and improve critical habitat conditions over the life of the plan.

Issues Summary – Bull Trout Recovery

The objector contends that the forest plan components fail to provide the ecological conditions necessary to contribute to the recovery of bull trout and designated bull trout critical habitat.

Objector

WildEarth Guardians

Objector's Proposed Remedy

“The Forest should adopt science-based, numerical benchmarks that provide protections exceeding those provided by INFISH’s RMOs. Without concrete guidance delineating objective criteria for bull trout habitat, determinations will be made in an ad-hoc, arbitrary, subjective way that will prevent the Forest from ensuring comprehensive protections for bull trout.”

Background

Per 36 CFR 219.8, the plan must include plan components, including standards or guidelines, to maintain or restore the ecological integrity of terrestrial and aquatic ecosystems and watersheds in the plan area, including plan components to maintain or restore structure, function, composition, and connectivity; as well as soil, water, and riparian areas. In addition per 36 CFR 219.9, the plan must include plan components, including standards or guidelines, to maintain or restore the diversity of ecosystems and habitat types throughout the plan area, and where necessary including species-specific plan components to provide the ecological conditions necessary to contribute to the recovery of federally listed threatened species like bull trout.

The ESA requires Federal agencies, in consultation with the USFWS, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species.

Response

The biological assessment (BA) found that implementation of the revised plan *may affect, and is likely to adversely affect*, bull trout and also may *adversely affect* designated critical habitat for bull trout. The BA outlines the specific reasons why implementation of the revised plan may have short-term adverse effects on these species and critical habitat but still result in overall net benefits and this is also covered in the final EIS (sections 3.2.9 and 3.3).

It is true that the USFWS recovery plan only lists non-native fish as a primary threat but it does not ignore forest management or the effects, including ongoing management issues tied to activities such as roads and road management on the Forest (USFWS 2015). A combination of the revised plan’s standard and guidelines (revised plan, pp. 16-24) as well as other plan components are expected to further promote ecological conditions that will provide protections and improvements to bull trout habitat and contribute to conservation of the species (see also my responses provided in the preceding section for *Watershed*,

Riparian, and Aquatic Habitat Plan Direction). However, and as noted in the biological assessment, bull trout in the planning area are primarily adfluvial and wide ranging, thus also influenced by conditions both on and off forest. Reasons for declines in the mid-80s and 90s are not fully understood, though non-native fish competition and predation in both Flathead Lake and the lower-river, and Swan Lake are believed to have combined with past habitat issues contributing to the reduced but relatively stable state of these populations (FEIS, section 3.2.4). The Forest has coordinated with Montana Fish Wildlife and Parks, and the Tribes on these issues in Flathead Lake and have actively contributed funding to non-native lake trout suppression in Swan Lake, and plan to continue to partner in such activities (FEIS, section 3.2.4).

Conclusion

I find Forest Supervisor Weber appropriately analyzed and consulted on effects to bull trout and bull trout critical habitat at Kuennen et al. (2017a) and in the USFWS biological opinion (USFWS, 2017). Although some actions resulting from the plan are likely to have short-term adverse effects to the species and critical habitat, the plan's components will be a net benefit to the species. In addition, some of these components are considered as section 7(a)(1) elements under the ESA and are anticipated to help contribute to species recovery.

Issue Summary – Primary Constituent Elements for Bull Trout Critical Habitat

The objector contends that the primary constituent elements for bull trout were not analyzed in the final EIS.

Objector

Flathead-Lolo-Bitterroot Citizen Task Force

Objector's Proposed Remedy

None provided.

Background

The ESA requires Federal agencies, in consultation with the USFWS, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species.

Response

The primary constituent elements for bull trout "critical habitat" are analyzed in section 3.2.4 in the final EIS, subsection "Bull trout," in the Forest's biological assessment (Kuennen et al., 2017a), and in the USFWS biological opinion (USFWS, 2017). The USFWS opined favorably on the primary constituent element analysis in the assessment (USFWS, 2017). The draft ROD discloses the outcomes of the ESA-required consultation, including findings and requirements laid out in the biological opinion. Effects on bull trout and bull trout critical habitat will once again be analyzed and consulted on at the project scale.

Conclusion

I find Forest Supervisor Weber appropriately conducted the ESA section 7 consultation related to the revised plan and its effects on bull trout and bull trout critical habitat. This includes the primary constituent element analysis in the biological assessment and biological opinion, with findings provided in the draft ROD.

Issue Summary – Best Available Scientific Information

Objectors contend that the forest plan does not rely on the best available science regarding protection of bull trout.

Objectors

WildEarth Guardians, Alliance for the Wild Rockies

An Objector's Proposed Remedy

“The Forest Service must support its decisions with reference to the best available scientific information and cannot rely on conclusory statements to reach less burdensome management decisions that will not adequately protect bull trout and its habitat.”

Background

Per 36 CFR 219.3, the responsible official must use the best available scientific information to inform the planning process.

Response

An objector contends that the plan does not provide the best available scientific information to justify changes from INFISH for bull trout protections. The final EIS describes use of best available scientific information for aquatic resources in section 3.1.1: “The recovery plan for the coterminous U.S. population of bull trout (USFWS, 2015b), the Columbia Headwaters Recovery Unit Implementation Plan for bull trout (USFWS, 2015a), and the Region 1 Bull Trout Conservation Strategy (USDA-USFWS, 2013) were instrumental in developing plan components and the conservation watershed network for native fish. Research conducted by scientists at the USDA Forest Service Rocky Mountain and Pacific Northwest Research Stations on climate change and native fish provided the impetus to be forward thinking” (FEIS, section 3.1.1). This research is cited in the document and references provided.

The final EIS contains additional citations and discussion of the science used to inform the revised watershed, riparian, and aquatic habitat plan components, which demonstrates consideration of the best available scientific information.

Conclusion

I find that Forest Supervisor Weber complied with 36 CFR 219.3, using the best available scientific information to inform the plan revision and support recovery of bull trout.

Infrastructure

Issue Summary – Travel Management Rule Subpart A

Objectors contend that the infrastructure plan components are inconsistent with the Travel Management Rule Subpart A and the 2012 planning rule requirements.

Objectors

Headwaters Montana, Winter Wildlands Alliance, WildEarth Guardians, The Wilderness Society, Alliance for the Wild Rockies

Objectors' Proposed Remedies

“Revise infrastructure plan components to work towards a realistic desired infrastructure that is sustainable and can be managed along with plan components for ecological sustainability, consistent with the planning directives.”

“Revise the infrastructure plan components to provide direction for achieving an ecologically and fiscally sustainable minimum road system, as required under the 2012 planning rule and subpart A of the Forest Service's travel rules, 36 CFR 212.”

Background

The 2012 planning rule indicates the development of plan components shall consider appropriate placement and sustainable management of infrastructure, such as recreational facilities and transportation and utility corridors (36 CFR 219.10 (a)(3)) for the integrated resource management of multiple uses in the plan area.

Subpart A of the Travel Management Rule (36 CFR 212) is intended to address the need to better manage funds available for road construction, reconstruction, maintenance, and decommissioning, and requires science-based transportation analysis when making road management decisions. This portion of the rule is intended to help ensure that additions to the National Forest System network of roads are those deemed essential for resource management and use; that construction, reconstruction, and maintenance of roads minimize adverse environmental impacts; and, finally, that unneeded roads are decommissioned and restoration of ecological processes are initiated (66 Federal Register 3206, Jan. 12, 2001).

Response

Objectors claim the revised plan components do not comply with the 2012 planning rule or Forest Service directives because they fail to consider best available scientific information, fail to provide standards and guidelines consistent with the sustainability and diversity requirements, lack a sufficient monitoring program, and fail to provide for a realistic and sustainable desired infrastructure.

A portion of the objectors' issues with the infrastructure plan direction (ecological diversity and monitoring) is related to grizzly bear and aquatic habitat management. Please refer to the *Grizzly Bear, Watershed, Riparian, and Aquatic Habitat Plan Direction*, and *Bull Trout* sections for the detailed response to those issues. This response will focus on objectors' claim that the revised plan lacks any infrastructure objectives, standards or guidelines to move the forest towards a minimum road system that is economically and environmental sustainable, per subpart A of the Travel Management Rule.

The portions of subpart A most relevant to the objectors' issue is 36 CFR 212.5 (b), which includes two requirements. One is to *identify* the minimum road system needed for safe and efficient travel and for administration, utilization, and protection of National Forest System lands. The other is to *identify* the roads on lands under Forest Service jurisdiction that are no longer needed to meet forest resource management objectives. In determining the minimum road system, the responsible official must incorporate a science-based roads analysis at the appropriate scale.

Note the requirement to identify the minimum road system does not require the Forest to establish an upper or absolute limit on the miles of road that the Forest must not exceed. Nor do the regulations include a substantive requirement mandating specific road management actions (e.g., decommissioning) to “achieve” a minimum road system. Rather as indicated in Forest Service Manual 7700, travel analysis *informs* decisions relating to administration of the Forest transportation system (e.g., road maintenance and other road management decisions such as road construction, reconstruction, decommissioning, storage, and motor vehicle use designations).

As indicated in the final EIS (section 3.12; appendix 8, pp. 8-326 through 8-328), the Forest completed a forestwide travel analysis in 2014 (USDA, 2014b), as required by subpart A. The report provides an assessment of the road infrastructure and a *set of findings and opportunities for change* to the Forest's transportation system. Those findings are being used now to prioritize ongoing road maintenance and inform project development as the Forest works to effectively manage an efficient transportation system. Relevant to objectors' issue, the travel analysis report was appropriately used at the programmatic scale to inform the forest plan components such as the objectives for miles of roads to be maintained,

reconstructed, and decommissioned or placed into stored service in the forest plan (FW-OBJ-IFS-01 through 03 and GA-SV-OBJ-04). Objectives such as these provide measurable actions the Forest may take over the life of the plan per the findings in the travel analysis report consistent with subpart A of the Travel Management Rule.

Objectors also appear to conflate the 2011 baseline information used to inform the grizzly bear access management plan components with the “minimum road system” per the Travel Management Rule, erroneously referring to “the desired condition of maintaining 2011 baseline levels for roads”. This is a misunderstanding of what the 2011 baseline informs.

The baseline for the Northern Continental Divide Ecosystem is defined per the on-the-ground conditions as of December 31, 2011, as modified by changes in numbers that were evaluated and found to be acceptable through the ESA section 7 consultation with USFWS while the grizzly bear was listed as threatened (revised plan p. 174). It is the measure used to comply with grazing, recreation facility and route density standards and guidelines. The 2011 baseline for open motorized route density and total motorized route density is a percentage value threshold based on a geospatial “moving windows analysis”. Although this information may inform travel analysis and subsequent road management decisions, it does not represent the minimum road system identification per the Travel Management Rule.

Objectors additionally contend the revised plan lacks direction to ensure a sustainable infrastructure system to maintain or restore ecological integrity. Here again I find some misunderstanding in what the planning and travel management rules require. The 2012 planning rule does not require an “ecologically and fiscally sustainable minimum road system,” as objectors claim. The rule requires “appropriate placement and sustainable management of infrastructure, such as recreational facilities and transportation and utility corridors” (219.10(a)(3)). Consistent with this requirement, the plan includes objectives, standards, and guidelines to guide the management of forest system roads and trails to achieve the desired condition: “a sustainable transportation system serves land management and public needs and purposes” (FW-DC-IFS-06). It includes measurable and time-specific objectives for road decommissioning, placing roads in intermittent stored service, road reconstruction, and road maintenance to address road-related resource effects (revised plan, p. 65). The final EIS specifically addresses effects of the infrastructure plan direction for water quality, riparian areas, grizzly bear, and wildlife habitat connectivity (see FEIS, sections 3.2.8, 3.2.10, 3.7.5, and 3.7.6). While the final EIS recognizes that roads can have environmental impacts, the revised plan’s road-related direction is expected to guide management that maintains or restores ecological integrity.

Conclusion

I find the revised plan complies with the 2012 planning rule requirements to guide sustainable management of infrastructure. I also find the revised plan will appropriately guide project and activity decision making consistent with Travel Management Rule to move the forest toward the minimum road system needed for safe and efficient travel and for administration, utilization, and protection of National Forest System lands.

Old Growth Forest

Issue Summary – Inadequate Plan Direction and Analysis

Objectors contend that the revised plan fails to provide adequate direction recognizing old growth as a key element for maintaining and preserving biological diversity on the Forest and that the final EIS fails to utilize the best available science concerning old growth.

Objectors

Montana Native Plant Society, Friends of the Wild Swan, Flathead-Lolo-Bitterroot Citizen Task Force, Alliance for the Wild Rockies

An Objector's Proposed Remedy

"The Forest Plan must contain a standard for the future desired amount of old growth forest habitat that is connected and well distributed across the Flathead National Forest."

Background

The 2012 planning rule requires plan components to maintain or restore key characteristics associated with terrestrial and aquatic ecosystem types. Key ecosystem characteristics are defined in the 2012 planning rule as the dominant ecological components that describe ecosystems and that are relevant and meaningful for addressing ecosystem condition and integrity as well as important land management concerns.

Old growth was identified as one of key ecosystem characteristics for the terrestrial vegetation on the Forest (FEIS, section 3.3).

Response

Objectors offer multiple claims about the inadequacy of old growth protections in the revised plan. My review finds Forest Supervisor Weber has considered these claims and has provided additional information in final EIS section 3.3.6 *Old-growth Forest*. Additionally, Forest Supervisor Weber has provided responses to these contentions in the response to comments section of the final EIS (appendix 8, specifically the *Vegetation Management* section). I do however wish to respond to claims about the science used for old-growth management.

Objectors criticized the use of Green et al. (2011), *Old Growth Forest Types of the Northern Region*, claiming the revised plan reliance on Green allows for the management of existing old growth down to *minimum basal numbers*, and that Green is being misapplied by the Forest.

Green et al. represents the best-available science for identifying old-growth stands in the Northern Region. The definitions provided in Green et al. are used because the Forest requires a standardized, statistically quantifiable, and measurable set of characteristics to identify old growth at the project scale as well as for forestwide monitoring at the broad scale (FEIS, section 3.3.6). My review finds Green et al. is not being misapplied, but is appropriately used for identification of old growth, as well as for explaining the context for old-growth plan components.

Further, as explained in the final EIS (sections 3.3.4, 3.3.6, and 3.7.4), the revised plan recognizes the values of forest attributes beyond those which meet the Green, et al. definition, such as plan components associated with forest size classes, very large tree components, and snags and down wood. This includes direction that recognizes these attributes and their potential contribution to future old growth habitat, such as by desired conditions (FW-DC-TE&V-10 through 12, and 14 through 16) and standards or guidelines for snag and live tree retention within harvest units (FW-STD-TE&V-06 and associated snag retention standards within each geographic area and FW-GDL-TE&V-09).

Objectors also claim the analysis underrepresents the historical presence of old growth, and that the analytical process used to estimate natural range of variation for old growth is inaccurate. One objector claims that the findings of Lesica (1996) directly contradict the conclusions for historical old-growth presence on the Forest.

The final EIS section *Historical old-growth forest conditions* (section 3.3.6) discusses the uncertainty of evaluating existing and historic old-growth conditions and the natural range of variation, and clearly concludes that the current proportion of old growth forest is likely relatively low compared to historical

conditions. This is consistent with Lesica literature, cited by the objector. This disclosure does not invalidate revised plan direction for old growth, which is part of the overall plan framework designed to achieve resilient vegetation desired conditions, including *growing* old growth over time (section 3.3, *Methodology and analysis process*).

Given this condition, the plan includes a desired condition that “forest conditions support the maintenance of existing amounts of old-growth forest and foster an increasing trend in the amount, patch size, and connectivity of old-growth forest into the future...”(FW-DC-TE&V-14). Establishing a desired condition for desired amounts of old growth, rather than a standard per the objector’s suggested remedy, is appropriate. Standards constrain how management is conducted rather than compel a specific outcome. Therefore establishing a standard for the future amount of desired old growth would not be appropriate.

Conclusion

I find the revised plan includes sufficient plan direction to maintain and protect existing old-growth forest both at the stand and landscape level, appropriately limits vegetation treatment activities within old-growth forest, adequately retains snags and downed wood within timber harvest areas, and guides management to develop future old-growth forest.

Soil Productivity

Issue Summary – Inadequate Plan Direction and Analysis

The objector contends the soils analysis and forest plan standards for soil productivity are not based on the best available science.

Objector

Alliance for the Wild Rockies

Objector’s Proposed Remedy

The objector did not propose a specific remedy to this objection issue.

Background

The NFMA (16 U.S.C. 1604) requires national forests to “insure... evaluation of the effects of each management system to the end that it will not produce substantial and permanent impairment of the productivity of the land,” and that timber harvest will only be allowed where soils will not be “irreversibly damaged.”

Under 36 CFR 219.3, the responsible official must use the best available scientific information to inform the planning process.

Forest Service Manual 2900 guidance ensures that forest management activities are designed to minimize or eliminate the possibility of establishment or spread of invasive species on National Forest System lands or to adjacent areas.

Response

FW-DC-SOIL-01 establishes the desired condition to conserve soil function and long-term productivity. Since soil function is difficult to measure in the field, associated factors that can be readily observed and measured are used, such as detrimental soil disturbance (FEIS, section 3.2.7). The standard FW-STD-SOIL-01 establishes the standard that vegetation management activities cannot create detrimental soil conditions on more than 15 percent of an activity area.

The definition of detrimental soil disturbance is based on Forest Service Manual Supplement No. 2550-2014-1. Per this policy, soils are considered to be detrimentally impacted when the 15 percent disturbance threshold is exceeded for compaction, displacement, rutting, severe burning, surface erosion, loss of surface organic matter, and soil mass movement. This policy is based on the assumptions that the magnitude of these impacts is dependent on the ecological interaction between local climate and soil physical, chemical, and biological properties and processes (Reeves et al. 2011) and that detrimental soil disturbance must reduce vegetative growth by more than 15 percent before it is detectable during routine measurements (Powers and others 1990; Reeves et al. 2011). Current findings from the Forest Service's long-term soil productivity study suggest that the extent of the negative impacts of vegetation management activities is related to soil texture and organic matter (Page-Dumroese et al., 2010; Powers et al., 2005; FEIS, section 3.2.7), which is consistent with these assumptions.

The objector is correct that the definition of detrimental soil disturbance in the EIS does not specify surface erosion in the definition consistent with the manual supplement. I'm instructing Forest Supervisor Weber to correct this.

In regards to coarse woody debris and fine organic matter, the final EIS discusses the scientific information supporting the importance of organic matter coarse woody debris (FEIS, section 3.2.3). The final EIS also discloses that at this time the Forest has no clear guidance on target levels for organic matter by habitat or soil type since organic matter levels vary in step with forest succession. In the interim, the soil management program on the Forest has adopted guideline FW-GDL-SOIL-04, which conserves the forest floor and coarse wood levels (FEIS, section 3.2.7). Cumulative effects of past management activities are discussed in the final EIS (section 3.2.8). This discussion does not quantify previous effects of coarse woody debris and fine organic matter across the forest because such level of detail is not practical or appropriate for programmatic NEPA analysis. Proposals for future management activities are required to assess detrimental soil disturbance, including loss of surface organic matter, during project-level NEPA analysis.

The objection also raises concerns about to the impacts of noxious weed infestations in relation to the productivity of the land and soil. The final EIS references the Forest's assessment for a summary of the current condition and trend of invasive plants on the Forest, including summaries of multiple years of data from Natural Resource Manager queries, risk assessments, and field observations (FEIS, section 3.6.1). In addition, the final EIS discloses potential impacts of the plan revision related to noxious weeds (FEIS, section 3.6.3) at a scale and level of detail appropriate for programmatic NEPA analysis.

In regards to disclosure of the effectiveness of required mitigation of soil damage or noxious weed treatment, the revised plan establishes guideline FW-GDL-NNIP-01: "[t]o reduce the probability of establishment of new non-native invasive plant populations, areas where soils are disturbed by management activities conducted or authorized by the USFS should be reseeded as soon as practical using USFS-certified weed-free seed mixes." This guideline is based on Forest Service Manual 2070, which emphasizes the use of native seed mixes in all revegetation, rehabilitation, and restoration projects on National Forest System lands. It would not be practical to quantify the effectiveness of this guideline because such an analysis would require site-specific information for future management activities.

Conclusion

With the addition of surface erosion in the definition of soil disturbance in the glossary of the revised plan, I find that Forest Supervisor Weber appropriately complied with the National Forest Management Act, and both 36 CFR 219.8 and 219.3, to address soil productivity. My review of the final EIS and revised plan indicates the Forest properly assessed, at a programmatic level, the effectiveness of the plan direction to address invasive species, including noxious weed infestations.

Fire Suppression

Issue Summary – Inadequate Analysis Fire Suppression

An objector claims the final EIS fails to provide analysis for the effects of fire suppression activities and policies on the ecosystem.

Objector

Alliance for the Wild Rockies

Objector's Proposed Remedy

The objector did not propose a specific remedy to this objection issue.

Response

The objector finds the final EIS fails to provide an adequate analysis of the cumulative effects of fire suppression. However, the final EIS clearly discusses the issue of fire and fuels management, including fire suppression when and where unmanaged wildfire is not acceptable (FEIS, section 3.8). In addition, the SIMPPLLE model was used to forecast wildfire activity for five decades into the future, and incorporated best available information to build fire suppression logic and assumptions into the modeling (FEIS, section 3.8).

Conclusion

I find that the analysis adequately discloses the effects of fire suppression.

Climate Change and Carbon Sequestration

Issue Summary – Analysis of Carbon Sequestration and Climate Change Impacts

Objectors contend the final EIS does not adequately address the effects of plan direction on carbon stocks and sequestration or the impacts of climate change on forest and aquatic ecosystems or wildlife habitat.

Objectors

Friends of the Wild Swan, Alliance for the Wild Rockies

Objectors' Proposed Remedies

“We request the Supplemental Draft EIS takes a hard look at the science of climate change.”

“Select an alternative that incorporates recommending all potential roadless areas as wilderness; maintains the current Forest Plan’s Amendment 19 road density and grizzly bear standards; maintains INFISH standards, Riparian Management Objectives and continued PIBO monitoring; management area allocations for riparian and big game thermal and snow interception; connects and recruits old-growth forest habitat and provides for connectivity for wildlife.”

Response

The final EIS contains considerable analysis devoted to the impact of plan direction on carbon stocks and sequestration (FEIS, section 3.4), as well as the impacts of climate change on aquatic and terrestrial ecosystems (e.g., FEIS, section 3.3 *Introduction* and section 3.3.1). Additional analysis explicitly considers the impacts of climate change on wildlife habitat and grizzly bears (FEIS, sections 3.7.4 and 3.7.5; section 6.5.5).

One objector suggested that CO₂ emissions from human activities such as forest management and recreation should be included in the carbon analysis. The carbon section focused on the major factors influencing the carbon budget of the Forest, which are primarily natural disturbances. The effects of motor vehicle use are tiny relative to the quantity of carbon that is sequestered by the forest. For example, the objector points to a study that estimated CO₂ emissions from snowmobiling in Montana to be about 96,000 tons per year. This is equal to 26,179 tons of carbon, or .026 teragrams. Carbon stocks on the Forest are 144 teragrams, so emissions from snowmobiling across the entire state of Montana represent just .0002% of the carbon stored on the Forest. This number is so small that it would not have a meaningful effect on the carbon analysis.

Conclusion

In conclusion, my review finds the final EIS, revised, and planning record are replete with modeling, literature review, and analyses regarding potential effects of climate change on Forest resources. The final EIS appendix 8 dedicates substantial space to addressing comments on climate change. Every resource analysis I reviewed in the final EIS – lynx, grizzly bear, wolverine, pollinators, fire and fuels, aquatics, vegetation, and et cetera incorporated a discussion of climate change. The analysis of carbon storage and sequestration was also quite thorough. I find no additional analysis or explanation is warranted in response to objections.

Issue Summary – Climate Change Effects to Ecological Sustainability

Objectors contend that the forest plan violates the 2012 planning rule's mandate to provide for ecological sustainability by not providing direction to address climate change.

Objectors

Friends of the Wild Swan, Alliance for the Wild Rockies, Jerry O'Neil

Objectors' Proposed Remedies

“Select an alternative that incorporates recommending all potential roadless areas as wilderness; maintains the current Forest Plan's Amendment 19 road density and grizzly bear standards; maintains INFISH standards, Riparian Management Objectives and continued PIBO monitoring; management area allocations for riparian and big game thermal and snow interception; connects and recruits old-growth forest habitat and provides for connectivity for wildlife.”

“Increasing the grazing of livestock and the harvest of timber, post, poles, and other forest products from these national forests in order to increase the albedo effect.”

“We request the Supplemental Draft EIS takes a hard look at the science of climate change.”

Response

The revised plan contains several components that explicitly address carbon sequestration and climate change, as well as numerous other components that are designed to promote healthy and resilient forests that would continue to sequester carbon throughout the time period covered by the plan. The effect of these components would be to “maintain, improve, and restore ecosystem resilience in light of a changing climate and uncertain future environment” (draft ROD, p. 17 and p. 13). A climate change adaptation strategy is also detailed in appendix 7 of the final EIS, and management strategies to increase the resilience of forests to climate change and other stressors are described in appendix C of the forest plan.

One objector suggested cutting more timber to harness the albedo effect. The citation provided by the objector (Bonan, et al. 1992) analyzed the effects of removing all trees in the boreal forest as part of a sensitivity analysis. The author does not conclude or advocate for increasing the albedo effect through deforestation as a tool to combat global warming.

Conclusion

I find the plan contains components that address climate change by promoting carbon sequestration and ecological integrity while also taking into account potential climate change effects consistent with the planning rule requirements.

Summary of Instructions

Plan Framework

Overall Scientific Integrity

- Clarify in the record how scientific information that was provided in public comment, but not cited in the assessment or final EIS, was considered during plan development and analysis.

Management Areas

Swan Valley

- Change the management area allocation in sections 3, 4, 5, and 9 (T20N, R17W) from 6c (high-intensity vegetation management) to 6b (medium-intensity vegetation management).
- Provide additional clarification about expected activities associated with the varying vegetation management intensities in management area 6 to address objectors concerns regarding interpretation of low, moderate, and high-intensity vegetation management.

Krause Basin

- Develop a strategy for effective management of these routes per the Forest motor vehicle use map. This includes installing route markers per Forest Service Manual direction at 7716.42, discouraging unauthorized uses through site-appropriate means, addressing adverse resource impacts when needed, working in partnership with the area's neighbors and other interested parties.
- Provide additional clarification about the range of recreation management opportunities provided in management area 7 across the forest.

Forest Products and Suitability for Timber Production

Objectives within Fiscal Capability

- Clarify in the ROD that forest plan objectives identified in the plan are based on current budget allocations and capacity and that they may be exceeded if additional funding and capacity is provided through budget allocations, new authorities, partnerships, or stewardship opportunities.
- Include a footnote to objectives FW-OBJ-TIMB-01 and 02 stating:
Estimates of timber outputs may be larger or smaller on an annual basis, or over the life of the plan, if legal authorities, management efficiencies, or unanticipated constraints change in the future. Modeling of the projected timber sale quantity under an unlimited budget and consistent with all plan components resulted in an average annual volume output in the first decade of 38 million board feet (7.6 million cubic feet) (FEIS, section 3.21.2).

Designated Areas

Amount and Location of Recommended Wilderness

- Given the loss of the bridge in the Bunker Creek area after the inventory step was completed, please review the record and determine whether the changed circumstance requires reassessment of the wilderness inventory or re-evaluation of the wilderness characteristics of this specific area. If not, provide clarification of the factors considered in the planning record and final ROD.

Management of Recommended Wilderness

- Change standard MA1b-STD-02, specific to the Jewel Basin Hiking Area, to a suitability component.
- Clarify in the final EIS the effects that led to the modification of alternative B to add the suitability plan component, MA1b-SUIT-06.
- Identify a strategy in the final ROD for initiating site-specific planning per the changes in suitability for mechanized transport and motorized use in the revised plan direction.

Wildlife

Canada Lynx

- Review the new science published by Kosterman et al. (2018), Holbrook et al. (Holbrook et al., 2018; Holbrook et al., 2017) and the final Canada lynx species status assessment (USFWS, October 2017) to determine whether any changes in the revised plan are needed. If no additional plan components or analysis is warranted, make any needed clarification in the FEIS and discuss the new science and the determination in the final ROD.

Wolverine

- Review Heinemeyer et al. (2017) to determine whether additional plan components are needed as a result of this new information. If no additional plan components or analysis is warranted, make any needed clarification in the FEIS and discuss the new science and the determination in the final ROD.

Elk Security

- Clarify guideline GA-SM-GDL-01 by changing the word “roads” to “routes” in order to include trails open to wheeled motorized use by the public.

Grizzly Bear

Use of Draft NCDE Conservation Strategy and Lack of Final Habitat-Based Recovery Criteria

- Review the final conservation strategy and habitat-based recovery criteria to determine whether changes to the plan and amendments are necessary, or whether additional analysis is warranted, prior to signing the final ROD.

Watershed, Riparian, and Aquatic Habitat Plan Direction

Riparian Management Objectives

- For FW-DC-WTR-04, clarify the meaning of “within reference ranges as defined by agency monitoring” to state “...within the range of conditions of the reference watersheds, as defined by agency monitoring.” This provides enough specificity to evaluate progress toward its achievement.
- Add text that cross-references FW-DC-RMZ-01 to FW-DC-WTR-04 and FW-DC-WTR-07 to clearly indicate the integrated nature of the three plan components as it relates to evaluating project-level management activities in riparian management zones.

Riparian Management Zones

- Revise FW-STD-RMZ-01 to include “or to the outer edges of riparian vegetation” in category 1. In category 2 include, “or to the outer edges of the 100-year floodplain”.

Watershed and Multiscale Analysis

- Clarify when multiscale analysis would be an appropriate tool in appendix C.

Soil Productivity

Inadequate Plan Direction and Analysis

- Correct the definition of detrimental soil disturbance in the EIS to include surface erosion.

List of Objectors and Interested Parties

Eligible Objectors

Alliance for the Wild Rockies
Edd Blackler
Keith Blaylock
Lee Boman
Stephen Braun
Carol Buchan
Sheri Burden
Capital Trail Vehicle Association
Citizens for Balanced Use (4 objections)
Mike Childs
Anne Dahl
Margaret Davies
Defenders of Wildlife
Michele Dieterich
Francesca Droll
Doug Ferrell
F. H. Stoltze Land and Lumber Company*
Flathead Area Mountain Bikers
Flathead Snowmobile Association
Flathead-Lolo-Bitterroot Citizen Task Force
Susan Foster
Friends of the Wild Swan*
Steve Gniadek
Chris Gotschalk
Alan Gratch
Greater Yellowstone Coalition
Kari Gunderson
Peter and Caroline Guynn
Headwaters Montana
Caroline Hill
International Mountain Bicycling Association
Sharon Lamar
John Larson
Norma Linsky
Jeff Lonn
Bret Luedke
Anna McCabe
Willaim (Bill) McCabe
Jan and Peter Metzmaker
Montana Chapter of the Sierra Club
Montana Logging Association*
Montana Native Plant Society
Montana Wilderness Association*
Brent Morrow
Jim Nelson

Guido Niederoest
North Fork Preservation Association
Doug Norman
Jerry O'Neil
Lance Olsen*
Brian Peck
Ruth Quist
Fawn Simensen
Sarah Stewart
Swan View Coalition*
The Wilderness Society*
Mary Via
Joel Vignere
WildEarth Guardians (2 objections)
Pam Willison
Steve Windbigler
Winter Wildlands Alliance*
Gary Wolfe
Rita Wolfe
Marilyn Wolff

Interested Persons

In addition to the starred (*) objectors in the preceding section, the following organizations participated as Interested Persons for one or more objection issues:

Missoula County Community and Planning Services
Montana Department of Natural Resources
National Parks Conservation Association
Whitefish Range Partnership

Terms and Abbreviations

Term	Full name
1986 forest plan	Flathead National Forest Land and Resource Management Plan (1986)
2012 planning rule	National Forest System land management planning rule (36 CFR Part 219; effective 2012, amended 2016)
assessment	assessment of the Flathead National Forest
amendment forests	collective term for the Helena-Lewis and Clark, Kootenai, and Lolo National Forests
draft strategy	Draft NCDE Grizzly Bear Conservation Strategy (USFWS, 2013)
final strategy	Final NCDE Grizzly Bear Conservation Strategy (IGBC, 2018)
the Forest	Flathead National Forest
revised plan	Flathead National Forest Land Management Plan (2018 revision)
NCDE amendments	Northern Continental Divide Ecosystem Grizzly Bear Amendments
Northern Region	USDA Forest Service Northern Region (also known as Region 1)

List of Abbreviations

Acronym	Full text
CEQ	Council of Environmental Quality
CFR	Code of Federal Regulations
d.b.h.	diameter at breast height
DC	desired condition (forest plan component)
DCA	demographic connectivity area
DEIS	draft environmental impact statement
EO	Executive order
FEIS	final environmental impact statement
FW	forestwide (forest plan component)
GA	geographic area
GDL	guideline (forest plan component)
GIS	geographic information system
INFISH	1995 Inland Native Fish Strategy
MA	management area
mi	mile
mmbf	million board feet
mmcf	million cubic feet
MA	management area
MFWP	Montana Fish Wildlife and Parks
NCDE	Northern Continental Divide Ecosystem
NEPA	National Environmental Policy Act

Acronym	Full text
NFMA	National Forest Management Act
NFS	National Forest System
NRLMD	Northern Rockies Lynx Management Direction
OBJ	objective (forest plan component)
PACFISH	Pacific Fish Strategy
PCA	primary conservation area
PIBO	PACFISH/INFISH Biological Opinion
ROD	record of decision
STD	standard (forest plan component)
SUIT	suitability (forest plan component)
TMDL	total maximum daily load
USDA	United States Department of Agriculture
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service

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