Frozen Moose EA – Flathead National Forest

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Issue 1: NEPA and NFMA

This EA was prepared under the 2003 CEQ Regulations. ***All references to 40 CFR 1500 are the 2003 version.***

Contention 1.1: Cumulative Effects

Two objectors contend that the responsible official did not complete an adequate cumulative effects analysis in violation of NEPA. They assert the responsible official did not consider or address the cumulative effects of this project combined with the Crystal Cedar, Taylor Hellroaring, and Hellroaring Basin projects, which all occur in the Whitefish Range during overlapping time periods. They object that the Frozen Moose Project does not show that it will maintain conditions that contribute to the growth and expansion of the Northern Continental Divide Ecosystem (NCDE) grizzly population as required by the Forest Plan.

Objector(s): SVC, Peck

Response: Effects are cumulative when they overlap in time and space. The projects objectors mention are well south and outside of the Frozen Moose project area. This information was included in the response to comments in the draft Decision Notice (Appendix B).

The Frozen Moose Environmental Assessment (EA) describes the conditions necessary to sustain the growth and expansion of the grizzly bear population, a desired condition of the Flathead Forest Plan (FW-DC-WL-02). The EA describes the habitat components necessary to sustain grizzly bear, how the project will affect them, and all in the context of forest plan direction (pp. 63-75). Cumulative effects to grizzly bear are disclosed on EA pages 74-75, and do not lead to a finding of significant impact.

The biological assessment (BA, project file document G-12) at page 33 describes that "The proposed action would maintain habitat components that contribute to sustaining the recovery of the grizzly bear population in the NCDE (FW-DC-TE&V-01), a mosaic of successional stages to provide for grizzly bear habitat needs over the long term (FW-DCTE& V-02), and habitat connectivity with neighboring grizzly bear recovery zones (FW-DC-WL-02)." Appendix 10 to the BA displays relevant forest plan standards and how the project complies.

The U.S. Fish and Wildlife Service determined the project is consistent with the effects analyzed in the 2017 biological opinion for the forest plan. (project file document G-13)

I find the EA includes an adequate cumulative effects analysis and clearly shows how the Frozen Moose Project meets forest plan direction for grizzly bear.

Contention 1.2: Effects of "historical roads"

The objector asserts the EA lacked detailed site-specific information regarding historical roads, and the EA should include the status of these "unauthorized roads".

Objector(s): WEG

Response: The Frozen Moose Environmental Assessment describes how the project will use some historical roads for the project, and then return them to an impassable state after use. These historical roads are part of the existing condition of the landscape. Neither the Travel Analysis report (project file document p001) nor the EA identified any "unauthorized roads." As included in the response to a similar comment on the EA, "If past management activities could have an effect to the resource in the defined analysis area, when combined with the proposed activities, this is disclosed as a cumulative effect and displayed in the environmental assessment." (draft Decision Notice, Appendix B, pp. 53-54). Extraneous background data is unnecessary (40 CFR 1500.2, 1500.4 and 1508.9) (2003).

I find the EA disclosed the appropriate amount of detail and is supported by the travel analysis for the project.

Contention 1.3: Prepare an EIS

Multiple objectors suggest that the Responsible Official should prepare an EIS. They assert "the agency's reliance on historic conditions to inform desired conditions is inherently flawed, and as such, the basis of the Frozen Moose EA purpose and need, along with the proposed actions, involves effects on the human environment that are likely to be highly controversial, and involves effects that are highly uncertain and involve unique or unknown risks, all of which necessitate promulgation of an EIS. The Forest Service fails to adequately address this controversy and uncertainty in the Updated EA and therefore fails to properly support the Frozen Moose statement of purpose and need."

Objector(s): Susan Hildner, Richard Hildner, WEG, FOWS

Response: The responsible official conducted the environmental assessment to determine the need for an environmental impact statement (EIS). The conclusion reached was a finding of no significant impact, and this is substantiated in the draft Decision Notice and based on evidence and findings in the EA.

Significance, as applied to the Frozen Moose EA, is considered as described at 40 CFR 1508.27 (2003), and disclosed in the draft Decision Notice, beginning on page 5. Controversial, in this context, refers to cases where substantial scientific dispute exists as to the effects of the action on the human environment. It does not mean that some individuals disagree with the proposal. Given the limited context of this project and the disclosed effects, there is no scientific controversy. Neither are the effects highly uncertain nor do they involve unique or unknown risks. The activities proposed are similar to projects conducted across the Flathead National Forest for decades, with similar effects. The analysis was conducted with scientific integrity and methodologies, and the project does not involve unique or unknown risks. The Finding of No Significant Impact is thorough in describing the rationale for the determinations made for each aspect of the ten tests for significance.

I find the FONSI valid and an EIS is not needed.

Contention 1.4: Purpose and Need

Objectors assert the purpose and need is flawed because it is based on historical conditions. Objectors contend the responsible official inadequately addressed restoration because he proposes logging and road building which don't restore ecosystems in violation of NEPA.

Objector(s): WEG, FOWS

Response: The purpose and need are described in the EA on pages 6-9 and Draft Decision Notice on pages 2-4 and are not based on historical conditions. Vegetation treatments are tools applied to meet the purpose and need to reduce tree densities and fuel loadings in the wildland urban interface and improve the diversity and resilience of forest vegetative communities. Aquatic restoration activities such as road maintenance, culvert replacement, and road rehabilitation are included to reduce the risk of road and culvert failures, benefiting fish habitat and aquatic species.

The purpose of NEPA is to provide environmental information to the public officials and citizens before decisions are made and action are taken. An assessment was conducted, and no significant impacts were found. "Logging and roadbuilding" are not expressly prohibited by NEPA, and the project was designed in compliance with the Flathead Forest Plan.

I find the responsible official adequately addressed the purpose and need in compliance with NEPA.

Contention 1.5: Minimum Road System

Objectors state that if the Forest Service chose not to identify the minimum road system for this project area, then at the very least it must explain its decision. The agency responded that including an alternative that identified a minimum road system would not meet the project's purpose and need, which demonstrates how the agency prioritizes vegetation treatments over true ecological restoration.

Objector(s): WEG, FOWS

Response: Objectors mischaracterized the responsible official's response to their request that the agency identify a minimum road system for the project and decommission unneeded roads. Please see Response to Comments in the Draft DN (Appendix B, pp. 54-55, 84).

Subpart A 36 CFR 212.5 (b)(1) describes that a minimum road system is to be identified by the responsible official at the *unit* level (national forest, national grassland, experimental forest, etc.). It is not incumbent upon the responsible official for an individual project to identify a minimum road system. A forestwide travel analysis was completed at the unit level for the Flathead National Forest. In accordance with 36 CFR 212.5(b)(2), identification of unneeded roads was completed for the Flathead NF.

The response states that the forestwide travel analysis did not identify any unneeded roads in the project area. A site-specific travel analysis was completed for Frozen Moose Project, and it also did not identify any unneeded roads. Therefore, including decommissioning roads was not warranted in this project.

Issue 2: Forest Plan

Contention 2.1: Forest Plan Consistency

An objector claims that the responsible official fails to demonstrate compliance with the National Forest Management Act and the 2012 planning rule because he fails to demonstrate how the project is consistent with the 2018 Forest Plan related to road density and grizzly bear recovery.

Objector(s): WEG

Response: Compliance with the 2018 Forest Plan is demonstrated throughout the analysis of effects to grizzly bears in the EA, as well as in the BA and project file. Table 34 in the EA displays how road densities will be the same after the project as they were before the project, and the narrative describes

how this will be so. Appendix 10 to the BA displays relevant forest plan standards and how the project complies.

Please see EA pages 70-74, project file documents G-12 (Threatened and Endangered Terrestrial Species BA), G-13 (US Fish and Wildlife Service Biological Assessment, 11/25/2020), and R-1 (Frozen Moose Forest Plan Consistency). Also see response to Contention 1.1.

The Fish and Wildlife Service determined the project is consistent with the effects analyzed in the 2017 Biological Opinion for the forest plan. I find the project and draft Decision Notice comply with the forest plan and NFMA.

Contention 2.2: Tiering to the Forest Plan

An objector contends that the analysis was not site-specific but rather tiered to the Forest Plan EIS for its analysis. This Forest Plan is "aspirational", and the Frozen Moose EA is not site specific.

Objector(s): FOWS

Response: Tiering is appropriate from the Flathead Forest Plan EIS to the Frozen Moose EA (40 CFR 1508.27). The Forest Plan EIS includes relevant scientific information. The EA also includes site-specific analysis for each resource analyzed, with the analysis area and methodology defined. The project file fully reflects the supporting documentation for the determinations in the analyses and the finding of no significant impact.

Issue 3: Response to Issues

Contention 3-1: Suggested Remedies

Objectors offer the following remedies:

Swan View Coalition

- Withdraw EA or prepare a comprehensive EIS

Bonnie Rice - Sierra Club

- Requested Resolution Meeting
- No new roads
- No project activities in Wild and Scenic River Corridor
- No chainsaws in recommended wilderness
- Withdraw the draft decision and prepare an EIS

Brian Peck

- Admit that grizzly bears have not recovered, and the best available science needs used.
- Use Mace and Waller (1997) as best available science
- The responsible official must drop the scientifically inaccurate claim - invented out of thin air - that "temporary" increases in OMRD (+5%), TMRD (+3%), and declines in Secure Core (-2%) are supported by accepted, peer-reviewed research, and have no negative consequences on grizzlies.
- Do not use the term "impassible"*(sic)* because it is deceptive.
- The Updated EA's admission that this Project would reduce Hiding Cover by 7220 acres, Foraging Habitat in RMZ's by 806 acres, engage in helicopter ignitions on 489 acres (mostly

in Recommended Wilderness and therefore illegal), and would improperly enter and damage 3336 acres of Secure Core is completely inconsistent with the ESA's requirement to protect listed species and avoid "harm" to their habitat - as well as being inconsistent with this Project's FONSI. The Forest Service must completely rethink and/or remove these intrusions in a new EIS.
- Revise WUI as areas adjacent to structures.
- The Flathead needs a permit from the ESA committee to be able to complete work in lynx critical habitat.
- Stay out of unique areas such as TE habitat.
- Withdraw project due to impacts to TE species and prepare an EIS with and additional action alternative

Adam Rissein - Wild Earth Guardians
- Withdraw the Draft DN and prepare an EIS that better addresses best available science for TE Species.
- Revise the project to better address the harmful impacts of roads. Revise project to comply with 2012 planning rule and 2018 forest plan.
- Include all closed and unauthorized roads in total motorized route density calculations where the entrances have not been recontoured the requisite 200-600 ft and/or still remain hydrologically connected, this includes unauthorized roads the Forest Service proposes to add to the forest road system
- Don't sign the DN until flaws in ESA consultation are addressed (i.e. BO availability)

Arlene Montgomery - Friends of the Wild Swan
- Prepare an EIS Better analyze climate change, wildlife, aquatics in EIS

Objector(s): Swan View Coalition, Sierra Club, Brian Peck, WildEarth Guardians, Friends of the Wild Swan

Response: Please see responses to Contentions 1.1, 1.2, 1.3, 6.10 and 9.2. The finding of no significant impact is the determination that an EIS is not required to make an informed decision on the Frozen Moose Project. Rationale and evidence are provided for the finding.

The EA and the project file substantiate how the project complies with the Flathead Forest Plan, and that the analysis was conducted with scientific integrity. Mace and Waller 1997 is included in literature citations, along with an abundance of other scientific references.

The USFWS is the regulatory agency that enforces the Endangered Species Act. A biological assessment was completed, consultation with the USFWS was completed, and a Biological Opinion was received. The Biological Opinion does not require public comment and is available in the project file.

Contention 3-2: Incorporation of Comments

An objector attempts to incorporate their own and other's previous comments by reference in this objection.

Objector(s): SVC

Response: Incorporation by reference of objector's own comments is allowed per 36 CFR 218.8(b), provided the objector includes the date, page, and section of the cited document, along with a

description of its content and applicability to the objection. In this case, Mr. Hammer has given the date of his previous comments and asked, "that they be read in their entirety." This does not meet the exception as described in 218.8(b). He also seeks to incorporate the objections of other parties. Objections from other parties are not included in the list of exceptions in 218.8(b). Therefore, no further response is warranted.

Contention 3-3: Outside the Scope of Review

Objectors object to other plans or products, such as the Flathead Forest Plan.

Objector(s): SVC, Peck, WEG, FOWS

Response: The draft Decision Notice for the proposed project is the subject of this objection opportunity (36 CFR 218.8(c)). The opportunity for administrative review of other decisions has passed.

Contention 3-4: Supportive Letters

A supportive letter - not an objection

Objector(s): AFRC

Response: No contention response required. Thank you for your comments.

Issue 4: General Wildlife

Contention 4.1: Grizzly Bear Hiding Cover

An objector contends that the reduction of hiding cover for many years will have negative consequences, worse than the responsible official's claim of a decrease of 1%.

Objector(s): Peck

Response: The Frozen Moose BA and EA disclose effects to grizzly bear habitat conditions, including hiding cover (BA, pp. 25- 28, 33-34; EA, p. 69). A Grizzly Bear Effects Analysis worksheet in the project file also explains how the effects to grizzly bear habitat were analyzed. It states, "Proposed vegetation treatment would reduce hiding cover by 743 acres, or one percent, across the affected subunits. Hiding cover would remain well distributed for grizzly bear travel and security during and after project implementation" (BA, p. 34; Draft DN, p. 12).

I conclude the responsible official properly considered the effects of the proposed action on grizzly bear habitat including hiding cover.

Contention 4.2: Impacts to Wildlife

An objector contends that the responsible official did not adequately analyze the impacts to wildlife and should prepare an EIS.

Objector(s): Sierra Club

Response: For a response to the objector's contention regarding project roads and grizzly bear recovery, please refer to Contention 6.10. The objector also states that project activities impacting bird species, including great blue herons and bald eagles, are not analyzed even though the responsible official acknowledges additional nesting sites may be present in the river corridor.

The EA (pp. 81-90) provides detailed analyses for wildlife species in general and for Species of Conservation Concern. The analysis for great blue heron is on pages 87-88 and in the Wildlife Specialist

Report and includes project compliance with the Forest Plan and the Migratory Bird Treaty Act. The EA also provides detailed project-level analysis relative to the Forest Plan desired condition FW-DC-TE&V-09, which describes the occurrence of persistent cottonwood communities across the forest providing habitat for a wide variety of wildlife species, including nesting colonies of great blue herons.

The desired condition FW-DC-WL DIV-01 describes the availability of very large diameter trees (greater than 20 inches diameter-breast-height, especially black cottonwoods) within one-half mile of rivers and 40-acre or larger waterbodies in order to provide nesting and roosting habitat for great blue herons. The Wildlife Specialist Report emphasizes that great blue herons should not be harassed or displaced from nesting due to project activities, and that fish should be available to provide food. These criteria were incorporated into the analysis.

To further reduce the risk of disturbance to nesting colonies of great blue herons, FW-GDL-WL DIV-05 limits activities within 0.2 mile of very large cottonwood trees used as active nesting rookeries from March 15 to August 1. Protection measures used in the analysis such as distances from nest and seasonal timing periods are based on the Forest Plan and federal regulations documented in the Wildlife Specialist Report. Potential effects to great blue heron from the proposed action are then minimized by requiring use of Design Feature #52 (EA, p. 174), a commonly accepted approach that describes distance buffers and seasonal timing restrictions to protect known or discovered great blue heron rookeries, to minimize these affects.

The EA also provides detailed analysis for bald eagle, including project compliance with, or application of, the Forest Plan, Bald and Golden Eagle Protection Act, Migratory Bird Treaty Act, Pacific Bald Eagle Recovery Plan, and the Montana Bald Eagle Management Plan, as well as formal nesting surveys conducted in cooperation with Montana Fish, Wildlife and Parks. Detailed project-specific analysis is described on pages 82-83 in the EA and in the Wildlife Specialist Report, including application of Forest Plan Desired Conditions, Standards, and Guidelines. Protection measures used in the analysis such as distances from nest and seasonal timing periods are based on the Forest Plan and federal regulations documented in the Wildlife Specialist Report.

The EA identifies potential effects from vegetation management actions in the proposed action and incorporates use of Design Feature #50 (p. 174), a commonly accepted approach that describes distance buffers and seasonal timing restrictions to protect known or discovered bald eagle nests, to minimize these affects.

The EA addresses potential effects on old growth as wildlife habitat primarily in the Northern Goshawk analysis section on pages 89-90. The proposed action would remove some potential nest trees and areas of mature forest but would retain existing old-growth forest and numerous potential home ranges for goshawks. No harvest would occur in old growth stands (DDN, pp. 44-45). In addition, the Wildlife Specialist Report addresses in detail a variety of species that may use old growth habitat, including fisher, pileated woodpecker, and flammulated owl. The report directs the reader to key Flathead National Forest 2018 Land Management Plan (LMP) components that address needs of the species within the context of the LMP, and species-specific LMP components. The Frozen Moose project incorporates all relevant aspects of the LMP for wildlife and habitat management.

Effects of proposed project vegetation management actions on habitat connectivity are discussed in the Response to Comments (DDN, p. 59) and referenced in the Wildlife Specialist Report.

I conclude that the responsible official complied with NEPA and NFMA by appropriately addressing the effects of the proposed action and designing the proposed action consistent with the LMP, respectively.

Contention 4.3: Sensitive Species

The objector contends the EA did not provide any survey results for sensitive species including goshawk, flammulated owl and black backed woodpecker, even though there will be extensive and intensive vegetation treatment activity that could displace them from important habitat.

Objector(s): FOWS

Response: To ensure clarity of terms used in the EA, it is important to note that the 2018 LMP no longer refers to Sensitive Species, but rather Species of Conservation Concern' (FEIS, volume 4, appendix 8, pp. 8-355 to 8-356). Sensitive species were established under Forest Service Manual 2670, but when a forest plan is revised under the 2012 Planning Rule (36 CFR 219), Sensitive Species are replaced on the corresponding national forest by Species of Conservation Concern (SOCC). SOCC refers to a species, other than federally recognized threatened, endangered, proposed, or candidate species, that is known to occur in the plan area (the national forest) 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. Available conservation strategies for species formerly designated as sensitive have been considered and integrated, as appropriate, into the plan components of the forest plan, supporting the biodiversity requirements of the 2012 Planning Rule.

The EA provides an explanation of the coarse-filter/fine-filter analysis approach used in the forest plan (p. 4). See also the forest plan FEIS, Volume 4, Appendix 6 for an explanation of how key ecosystem components and stressors for SOCC are addressed by coarse-filter and species-specific plan components. The coarse-filter approach seeks to manage a broad range of habitats identified as necessary to maintain the natural diversity of species, ecosystems, and ecosystem processes on the Forest. Habitat needs for most plant and animal species on the Forest are provided by forest plan direction developed under a coarse-filter approach. The proposed action is required to be consistent with forest plan desired conditions, standards, and guidelines. Compliance specifically for wildlife habitat diversity is disclosed in the consistency checklist (pp. 19-23).

Potential direct, indirect and cumulative impacts to fifteen wildlife species from the proposed action were analyzed in the EA. The species-specific section of the wildlife analysis (EA, pp. 82-90; Wildlife Specialist Report) is focused on SOCC and other species that may be affected by the proposed action. The EA incorporates forest plan desired conditions, standards, or guidelines relevant to the proposed action. The life history, habitats, and effects to these species were assessed in the forest plan FEIS, and at the project level in the EA. See also EA Appendix B, and the Wildlife Specialist Report for cumulative effects analysis for wildlife species in the project area.

Black-backed woodpeckers and Northern goshawks are analyzed in detail (Wildlife Specialist Report; EA, pp. 83, 89). Relevant forest plan components are presented as well as how the proposed action is in compliance with them.

Fisher were not included in the project analysis because no habitat exists in the project area. Translocated fisher were known to occur on the Forest in the past, and the Forest contains some potential habitat in the warm-moist potential vegetation type (personal communication Cas Waters Flathead NF Wildlife Biologist). However, the Frozen Moose project area is primarily in cool-moist habitats and therefore does not contain fisher habitat.

Pileated woodpecker was not analyzed since the proposal would not affect foraging or nesting habitats in old-growth forest or dead trees. In addition, the species were not identified as a concern by MT Fish, Wildlife and Parks. NEPA analysis should "concentrate on issues that are truly significant to the action in question, rather than amassing needless detail." (40 CFR 1500.1(b) and 1500.2(b) 2003).

For an explanation of analyses of old growth in the EA, please see response to Contention 4.2. The remaining wildlife species with habitat in the project area analyzed in detail are: bald eagle; black-backed woodpecker; Clark's nutcracker; common loon; elk; white-tailed deer; mule deer; moose; gray wolf; great blue heron; harlequin duck; marten; northern goshawk; Townsend's big-eared bat, and; western (boreal) toad.

I conclude that the responsible official appropriately addressed the effects to wildlife species from the proposed action.

Issue 5: Fisheries and Bull Trout

Contention 5.1: Best Management Practices for Fish Protection

An objector contends that the responsible official fails to protect habitat for bull trout and aquatic species by relying on Best Management Practices (BMPs) to protect water quality and fish habitat because BMPS fail to protect water quality and fish species.

Objector(s): FOWS

Response: The objectors state that there is no evidence that application of BMPs (interpreted here to be primarily BMPs that serve as engineering controls on sediment conveyance) protect fish habitat and water quality. The objectors further take issue with ARM 16.20.603 (11) and claim that the resulting allowance for temporary sediment exceedances create a negative feedback loop for continued water quality and aquatic habitat degradation.

While several linked laws, regulations, and policy components play into this issue, central to them (as noted by the objectors) is the aforementioned ARM. It is beyond the purview of this objection review to debate the merits of ARM 16.20.603(11); this is the current Montana law, and the potential allowances for sediment exceedance and the resulting effects on bull trout must be considered by the responsible official while conducting effects analysis for bull trout habitat and population viability. Regardless of short-term allowances for sediment delivery outlined in this ARM, the responsible official must complete a Biological Assessment, consult with the U.S. Fish and Wildlife Service, and reach concurrence on the anticipated effects from project activities.

Within the Aquatics analysis for the project, anticipated BMP effectiveness was demonstrated through, a) direct citation of local monitoring information, b) analysis of process-based model outputs determining efficacy of proposed BMP measures, and c) citation of literature either directly or through tiered citation to the 2018 Flathead Forest Plan EIS. In tandem with these findings, the EA notes that the North Fork of the Flathead River and Trail Creek are currently meeting all beneficial uses under beneficial use classification A-1, which is the highest water quality designation assigned by the state of Montana. Per page 96 of the EA, no streams within the proposed project subwatersheds have been designated as impaired as of the 2018 Montana DEQ reporting cycle.

In summary, I find that project activities will be protective of bull trout and that the Frozen Moose Aquatics analysis has sufficiently evaluated and established compliance and consistency with all applicable law, regulation, and policy and are consistent with Forest Plan components intended to conserve or contribute to recovery of bull trout per 36 CFR 219.9 (b)(1).

Contention 5.2: Impacts to Fish Species

An objector contends that the responsible official did not analyze the impacts to fish from rising stream temperatures, less water, increased sediment, and increased peak flows on bull trout and aquatic life in violation of NEPA.

Objector(s): FOWS and Swan View Coalition

Response: ESA (Section 7(a)(2)) requires that the Forest Service consult with the US Fish and Wildlife Service to ensure that effects and outcomes of an action are covered under law; and, that these outcomes do not jeopardize a listed species (7(b)(3)(a) or adversely modify its critical habitat. This has been completed for the proposed action.

The proposed action will not affect the life history diversity and isolation, and persistence and genetic integrity indicators (Frozen Moose Biological Opinion (BO), p. 16). However, the BO using the EA and Biological Assessment analysis for sediment indicates that the concentration of activities in the Red Meadow local population will have short-term adverse effects to the species and its critical habitat. And because, the sediment indicator for Lower Whale and Trail Creek bull trout populations is functioning appropriately prior to project activities, project effects and outcomes are not anticipated to be adverse for bull trout in these areas (BO, pp. 17-18). At the same time, the long-term trajectory of effects to these bull trout systems should be left in a better and more resilient state, by removing sediment delivery risk from legacy in line stream culverts and road improvements.

The BO briefly touches on climate outcomes and suggests that bull trout habitats will persist but be reduced. Also, Red Meadow, Lower Whale and Trail Creek watersheds are a part of the revised Forest Plan's Conservation Watershed Network (CWN). The CWN provides objectives and guidelines (FW-OBJ-CWN-01 and 02 and FW-GWL-CWN-01) that helped formulate some of the crossing remedies in this project as well as front loading a couple of culvert/crossing remedies prior to implementation of the project in Lower Whale Creek (EA, Cumulative Sediment Delivery Table 46). The Flathead National Forest's CWN was developed using a mutli-scale process that identified those system thought to be most resilient and supportive of native fish conservation, including climate resiliency (Flathead National Forest Revised Plan, Appendix E).

The peak flow indicator noted by the objector as another component that should be looked at relative to fish and fish habitat was indeed reviewed (Project file, Issue Statement Spreadsheet, Row 5) and not deemed consequential enough to bring forward as an analytical indicator. This also was addressed in the Draft Decision Notice in response to comments.

I find that the responsible official performed an adequate aquatic analysis in compliance with NEPA.

Contention 5.3: Bull Trout numbers declining with the project using inappropriate solutions to improve.

Objectors contend there are low redd counts in 3 bull trout streams in the project area and the project proposes to replace culverts and log in the stream corridor as the solution. The EA relies on culvert upgrades to solve this problem but acknowledges that these are funding dependent and does not analyze the potential effects of not replacing the culverts.

Objector(s): FOWS

Response: Objectors further ask, “What about amounts of fine sediment and the effects, for instance Whale Creek's fine sediment hovers around 35% as shown in McNeil core data indicating it is a threatened stream”.

The EA and BO both address trends in migratory bull trout redd counts in the three streams referenced above. As noted above, and in the EA and the USFWS Recovery Plan (USFWS 2015), the primary threat to bull trout in this Core Area are lake trout in Flathead Lake. The nonnative fish are thought to have contributed to the depressed state of adlfuvial (lake-migratory) bull trout that is noted in the comment above. Likewise, habitat is not considered a primary threat in the Flathead Lake Core Area (U.S. Department of the Interior, Fish and Wildlife Service, 2015), stream habitat conditions within the range of bull trout on the Flathead National Forest are generally exceptional, and streams in managed watersheds are very close to reference conditions (Archer, 2018), suggesting current management direction is providing quality bull trout habitat (Saunders, Ojala, and Van Wagenen, 2019).

There are legacy conditions on the Forest that adversely affect bull trout spawning and rearing habitats that should be addressed, which this project attempts to do (EA, p. 99; Aquatics Specialist Report; 2017 Culvert Monitoring Report, Flathead National Forest, 2018). That includes addressing the 18 (14 replacements and 4 removals) high risk stream crossings in both Red Meadow and Lower Whale creek watersheds. However, these actions are not expected to change the trajectory of migratory bull trout numbers returning to the North Fork tributaries until downstream primary threat factors in the lake are better understood and managed (Frozen Moose EA; Montana DNRC HCP Biological Opinion, December 2011 IV-ii Part IV Aquatic Species; USFWS 2017, Recovery Unit Implementation Plan for Bull Trout in the Columbia Headwaters Recovery Unit). Though, these culvert remedies they will protect existing habitat create resiliency into the future to maintain what currently uses these streams.

And, as noted in response to Contention 5.2 some crossings have already been removed, demonstrating a commitment to this area before entering for the integrated vegetation management action.

The project analysis indicates that the logging effects will not be measurable (also see Hydrology Response to Contention 7.1) and that reconstruction and use of roads will create short term increases in sediment potentially delivered to the stream (EA, Table 45) with much of the short term sediment increases coming from stream crossing remedy that will have longer term benefits, especially in Red Meadow Creek.

Finally, to the contention about decreases in bull trout spawning and low numbers and drivers. There is a body of evidence that is presented in the analysis and project consultation, and in the 2017 Forest Plan and 2017 Recovery Strategy, that all point to non-native lake trout as the primary threat and driver to adfluvial bull trout production in the Flathead Lake Core area. Figures 1 and 2 of the USFWS’ Biological Opinion show that all three local bull trout populations (Trail, Lower Whale and Red Meadow creeks) experienced migratory fish declines from the mid-1980s. This coincides with the explosion of lake trout in the Foraging, Migrating and Overwintering (FMO) critical habitat used by these fish. Numbers have stabilized but at a lower level, but for Red Meadow, which has never been a big fish-producer compared to other North Fork local populations (Project Record I007). When one compares percent fines data and averages over the long term in Trail and Lower Whale compared to systems in the South Fork Flathead the averages are similar, though numbers of bull trout have been far reduced in the North Fork Compared to the South Fork, which has no lake trout to contend with (Project Record I007). Also, see response below to Contention 5.4.

Contention 5.4: Bull Trout – Red Meadow Creek

An objector contends that the responsible official ignored the declining bull trout redd counts in Red Meadow Creek, which is bull trout critical habitat, for 12 years allowing them to be extirpated rather than investigating the cause and at the very least attempting to remedy it. Redds have not been surveyed in Red Meadow Creek since 2008. The EA does not disclose whether migratory bull trout are still foraging and utilizing Red Meadow Creek or whether they are attempting to spawn but are unsuccessful due to sediment and other habitat conditions.

Objector(s): FOWS

Response: See response to Contention 5.3 above as well as this disclosure from the BO, page 22, "Although we anticipate that the proposed action will result in adverse effects to bull trout in the Red Meadow Creek local population, the overall effect to the Flathead Lake Core Area population would be negligible because of the relatively small contribution from this local population. Red Meadow Creek is one of 22 local populations contributing to the Flathead Lake Core Area (USFWS 2015b). The functioning of the Flathead Lake Core Area would continue to be maintained and the risk from stochastic change in the environmental would be unaffected. This is largely because of the strength and stability of the remaining local populations, the relatively small contribution of Red Meadow Creek bull trout to the core area."

Also, the EA at page 98 states, "Likewise, habitat is not considered a threat in the Flathead Lake Core Area (U.S. Department of the Interior, Fish and Wildlife Service, 2015), stream habitat conditions within the range of bull trout on the Flathead National Forest are generally exceptional, and streams in managed watersheds are very close to reference conditions (Archer, 2018), suggesting current management direction is providing quality bull trout habitat (Saunders, Ojala, & Van Wagenen, 2019). Rather, bull trout in the Flathead Lake Core area are primarily threatened by lake trout and angling pressure (USFWS, 2015)."

I conclude the responsible official appropriately disclosed impact to Bull Trout from the proposed action.

Contention 5.5 Bull Trout and Riparian

The objector contends that logging in riparian is not appropriate and is a cumulative impact on top of the extensive road work that was not analyzed in the EA.

Objector(s): FOWS

Response: Proposed riparian harvest activities were also captured in Contention 7.1 which states that riparian ecosystem processes would not be maintained if the Frozen Moose project were implemented and that there is no science-based justification for project activities. In Contention 5.5, the objectors argue that the adverse effects to riparian ecosystem processes would in turn adversely affect bull trout populations.

The response to Contention 7.1 notes that proposed Frozen Moose riparian harvest activities have been based on best science related to ecosystem succession and disturbance processes, have been adequately analyzed, and that Riparian Management Zone ecosystem integrity would be maintained. The analysis disclosed in both the Biological Assessment and Effects to Aquatic Resources (EA) uses multiple lines of evidence to demonstrate BMP effectiveness and continued bull trout viability through project implementation. Subwatershed-scale assessment of riparian vegetation condition and sediment budgets identifies cumulative short-term effects and long-term progress toward desired conditions.

Similarly, the BO received from the USFWS for the proposed action does not find adversity to bull trout from proposed activities.

I find that project activities will protect bull trout and that the Frozen Moose Aquatics analysis sufficiently evaluated and established compliance and consistency with all applicable law, regulation, and policy. The proposed action is consistent with Forest Plan components intended to conserve or contribute to recovery of bull trout per 36 CFR 219.9 (b)(1).

See response to Contention 7.1 for further discussion.

Contention 5.6 Culverts and Risk Left Untreated

Objectors contend that the response on page 72 of the Draft Decision Notice essentially confirms their concern that all necessary culvert work and watershed restoration will not be accomplished by the Frozen Moose Project because it largely confines such work to areas that overlap the project area and to roads needed to conduct the logging and other vegetation work.

Objectors(s): Swan View Coalition

Response: See response to Contention 5.2 above. And, as noted in the EA in Table 6, 12 of the 18 culverts are planned for removal and replacement during proposed timber sale activities. Also as mentioned in response to Contention 5.2, these systems being in a CWN stream raise the emphasis and probability of finding funding via other infrastructure and regional funding initiatives. However as noted by the objector there will be legacy high-risk stream crossings that were identified in previous evaluations and that will remain on project landscapes. Table 42 in the EA (p. 96) discloses the estimated sediment delivery in tons for potential culvert failures under the No Action Alternative.

Issue 6: Threatened and Endangered Species

Contention 6.1: Risks to Threatened and Endangered Species

Two objectors contend that the responsible official ignored their comments and did not adequately analyze risks to grizzly bear, lynx, and bull trout due to project activities.

Objector(s): SVC, WEG

Response: Biological assessments were prepared by biologists and disclose effects of the project on endangered and threatened species (Frozen Moose BA; DDN, pp.22-23). Under provisions of the Endangered Species Act, Federal agencies must seek to conserve endangered and threatened species and to ensure that actions are not likely to jeopardize the continued existence of any of these species. It was determined the Frozen Moose Project may affect, likely to adversely affect bull trout, bull trout critical habitat, grizzly bear, Canada lynx, and Canada lynx critical habitat (DDN, pp. 22-23). The rationale for determinations of effects on these species is summarized in the DDN (pp. 11-13). For Canada lynx and Canada lynx critical habitat, "these determinations were made because the majority of project activities are located within the wildland-urban interface to conduct fuels reduction activities...Landscape-level travel connections would be maintained and a mosaic of stand conditions would persist to allow for lynx travel corridors."

For grizzly bear, the rationale includes research benchmarks, hiding cover availability and reduction, improved foraging habitat, and effects of temporary roads during project implementation.

Determinations for bull trout and bull trout critical habitat are based on priority watersheds, and effects of predicted sediment delivery resulting from proposed culvert upgrades.

Consultation was conducted, and the US Fish and Wildlife Service (USFWS) responded with a letter of concurrence (USFWS Biological Opinion on Frozen Moose). Terrestrial wildlife consultation for the Frozen Moose Project with the USFWS ensures project consistency with both the 2017 programmatic biological opinion and 2018 revised incidental take statement for grizzly bear and Canada lynx. The USFWS Biological Opinion (BO) states that the Frozen Moose Project *is not likely to jeopardize the continued existence of grizzly bear and lynx* and *is not likely to result in the destruction nor adverse modification of designated Canada lynx critical habitat* (USFWS LTR-BO Frozen Moose, pp. 5, 7, 9-10). Additionally, the USFWS concludes the Frozen Moose Project will not appreciably reduce either the survival or recovery and *would not jeopardize bull trout at the range-wide scale, and is not likely to destroy or adversely modify bull trout critical habitat* (BO, p. 38). An Incidental Take Statement was issued for the Frozen Moose Project's effects on bull trout with terms, conditions, and recommendations for implementation (BO, pp. 39-43).

Comments regarding wildlife including grizzly bear, Canada lynx, and bull trout, were addressed and responded to in the Draft Decision Notice (DDN, p. 59-67).

I conclude the responsible official adequately addressed public comments and analyzed and disclosed the effects of the proposed action in compliance with NEPA and the Endangered Species Act.

Contention 6.2: Adverse Impacts to Grizzly Bears from Roads

The objector contends the responsible official omitted historical roads -- which will be returned to the NFS road system upon project completion -- in its calculation of TMRD, based solely on the rationale that these roads will be made "impassable" following project activities. Such rationale was prohibited under Amendment 19, which required that roads be reclaimed and no longer function as roads or trails (motorized or nonmotorized) in order to be omitted from TMRD.

Objector(s): Sierra Club

Response: The objector also claims that not reclaiming roads to this level will continue to adversely impact grizzly bears; that the responsible official does not provide supporting analysis or empirical evidence that placement of rock barriers, berms or natural debris will effectively render a road impassable; and that past history on the FNF and illegal motorized use despite these barriers illustrates that these methods are not foolproof and that illegal use is indeed occurring, including in the North Fork area.

The responsible official demonstrates compliance with the 2018 Forest Plan throughout the Frozen Moose Project analysis. The current Forest Plan tiers to the Northern Continental Divide Ecosystem (NCDE) Grizzly Bear Conservation Strategy (DRAFT 2013, finalized 2019), which summarizes best available science. Amendment 19 is from the 1986 Flathead National Forest Land Management Plan which is no longer current.

Temporary changes in the open motorized route density, total motorized route density, and secure core were calculated for this project, including estimated changes per year for incorporation into the 10-year running average required by Forest Plan Standard FW-STD-IFS-03 and are consistent with the 2018 Flathead National Forest Land Management Plan (Frozen Moose BA, p. 83; Frozen Moose Moving Averages_10 yr).

Please see response to Contention 10.2 for more information on closed roads and TMRD, and response to Contention 6.10 for more information on Frozen Moose analysis on grizzly bear and roads.

I find that the responsible official adequately analyzed the effects of temporary roads on grizzly bears.

Contention 6.3: Alternative that meets the Research Benchmarks

Objectors contend the EA fails to develop and evaluate an alternative that would meet the 19/19/68 "research benchmarks" for OMRD/TMRD/Core. These are the benchmarks by which FWS measures the incidental take of grizzly bear in its biological opinions.

Objector(s): SVC

Response: The Frozen Moose Biological Assessment (BA) discloses that access conditions in two of the affected subunits do not currently, and will not at project completion, meet research benchmarks. This results in incidental take for grizzly bear but is within the level of take exempted by the Forest Plan Biological Opinion (Frozen Moose BA, p. 34). Failure to meet research benchmarks is included in the rationale for grizzly bear effects determination of may affect, likely to adversely affect, and US Fish and Wildlife Service project review also finds consistency with the 2017 Biological Opinion (BO, pp. 2-3).
I conclude the responsible official properly considered and disclosed the effects of the proposed action on grizzly bear including research benchmarks.

Contention 6.4: Design Criteria for Grizzly Bears

Objectors contend that the use of design criteria for grizzly bears do not go far enough to protect the species.

Objector(s): WEG, Peck

Response: The EA includes design features to reduce the risk of disturbance to the grizzly bear population (pp. 174-177). Public comments were considered and addressed in the Draft DN (pp. 65-66). The EA also addresses comments proposing to minimize proposed actions in secure core and concludes that the Frozen Moose Project purpose and need could not be achieved (p. 13). Therefore, this alternative is not considered in detail.

The BA clearly links project design features with Forest Plan Standards and Guidelines (pp. 34-35, Appendix 4, Appendix 10). Please see response to Contention 6.1 for more information on Biological Assessments, USFWS consultation, and the resulting Biological Opinion for grizzly bear.

In conclusion, the project design features for grizzly bear protection clearly align with the Forest Plan Standards and Guidelines and the BO.

Please see also the response to Contention 6.1.

Contention 6.5: Grizzly Bear Foraging Habitat

An objector contends that the statement in the EA noting the decrease in available grizzly bear forage from ground disturbance would be temporary, doesn’t address the impact to bears from the five years plus of disturbance. The EA doesn't explain, or seem particularly concerned about, what grizzly bears will eat on those compromised acres for 5 years.

Objector(s): Peck

Response: The EA includes effects to grizzly bear foraging habitat (pp. 69-70). It explains that "timing restrictions during the springtime period…would reduce displacement of bears foraging on spring foods located at lower elevations." It also states that "riparian areas provide high-quality forage for grizzly bears. The analysis area includes over 25,000 acres of mapped riparian management zones that provide potential riparian foraging habitat for grizzly bears" (EA, pp. 69-70; Frozen Moose BA, pp. 28-29). Project analysis and the resulting BO state that foraging habitat is expected to improve in some areas following vegetation management as greater amounts of sunlight and spring habitat reach the forage floor (BO, p. 4).

I conclude the responsible official properly considered and disclosed the effects of the proposed action on grizzly bear habitat including foraging habitat.

Contention 6.6: Grizzly Bear – Response to Comments

An objector contends that the responsible official did not adequately respond to his comments because "responses essentially restate the Forest Service's position" and do not provide actual relief to grizzly bears.

Objector(s): SVC

Response: Public comments were considered and addressed in the Draft DN (pp. 65-66). The EA includes design features to reduce the risk of disturbance to the grizzly bear population (pp. 174-177). Please see response to Contention 6.1 for more information on Biological Assessments, USFWS consultation, and the resulting Biological Opinion for grizzly bear, and response to contention 6.4 on design features for grizzly bear.

I find the responsible official considered and addressed comments on the proposed action.

Contention 6.7: Impacts to Greater Grizzly Bear Population

An objector contends that the responsible official fails to consider impacts to the grizzly bear population as a whole, not just the Northern Continental Divide Ecosystem. Furthermore, the agency's analysis in response to comments failed to properly demonstrate how expanding the road system would not hinder grizzly bear recovery.

Objector(s): WEG

Response: In its 1993 Grizzly Bear Recovery Plan the USFWS identified five recovery zones known to have suitable space and habitat for recovery of grizzly bear populations, one being the Northern Continental Divide Ecosystem (NCDE). The USFWS identified two separate requirements that must be met before the population within an ecosystem can be delisted. These are: (1) attainment of the population demographic parameters for that ecosystem within the monitoring period specified; and (2) the development and completion of an interagency conservation strategy that will ensure that adequate regulatory mechanisms will continue to be present after delisting. Adequate regulatory mechanisms are those regulations, policies, and guidelines that will ensure that the grizzly bear population and the habitat of the species within the recovery zone will be conserved after delisting. The Flathead National Forest 2018 Forest Plan defines the regulatory mechanisms by which grizzly bears will be conserved and recovered on the Forest, which is clearly defined by the USFWS as located within the NCDE.

The responsible official followed all regulatory requirements to consider potential project impacts to grizzly bears, and those efforts are documented in the project record. Biological assessments (BA) were

prepared for the project to assess and disclose effects of the proposed action on endangered and threatened species (BA; Draft DN, pp. 22-23). Appendix 10 in the BA describes how the project is consistent with the Grizzly Bear Direction in the 2018 Forest Plan. Under provisions of the Endangered Species Act, federal agencies must seek to conserve endangered and threatened species and to ensure that actions are not likely to jeopardize the continued existence of any of these species. It was determined the proposed action *may affect, likely to adversely affect* grizzly bear (Draft DN, pp. 22-23), requiring consultation with the USFWS.

The terrestrial wildlife consultation for the proposed action was a second-tier consultation, with the USFWS ensuring project consistency with the 2017 programmatic biological opinion and 2018 revised incidental take statement for grizzly bear. The BO (pp. 2-5) states that the Frozen Moose Project *is not likely to jeopardize the continued existence of grizzly bear*, confirming that the project meets the anticipated take consulted on in the Forest Plan and does not jeopardize grizzly bears.

Comments regarding impacts to wildlife including grizzly bear were addressed and responded to in the Draft DN (pp. 59-67). For a response to the objector's contention regarding project roads and grizzly bear recovery, please refer to response to Contention 6.10.

I conclude that the responsible official considered impacts to grizzly bears from the proposed action at the appropriate scale.

Contention 6.8: Lower Whale and Red Meadow Moose BMUs

An objector is concerned about the disclosure that the Lower Whale and Red Meadow Moose BMU subunits would fail to meet standards during and up to 5 years after project implementation. He also states there is no scientific evidence that standards and guidelines would limit adverse impacts to grizzly bears.

Objector(s): Peck

Response: The vegetation treatments in the proposed action will cause both the Lower Whale and Red Meadow Moose BMUs to deviate from existing open motorized route density (OMRD) and total motorized route density (TMRD) during project implementation and for a period of time afterward as vegetation regrows (EA, Table 34, p. 72). The Frozen Moose Draft DN responded to comments about core area and temporary changes to road density (pp. 63-64).

As explained on page 68 of the EA, route densities greater than those known to adversely affect grizzly bears, continue to contribute adverse effects to individual grizzly bears. This results in incidental take for this species but is within the level of take exempted by the forest plan and USFWS biological opinions. Consultation was conducted with USFWS, and the Service responded with a letter of concurrence (Frozen Moose BO). It was determined the Frozen Moose Project *may affect, likely to adversely affect grizzly bear* (Draft DN, p.22-23). The terrestrial wildlife consultation for Frozen Moose Project was a second-tier consultation, with the US Fish and Wildlife Service ensuring project consistency with the 2017 programmatic biological opinion and 2018 revised incidental take statement for grizzly bear. The BO states that the Frozen Moose Project *is not likely to jeopardize the continued existence of grizzly bear*, confirming that the project meets the anticipated take consulted on in the forest plan and does not jeopardize grizzly bears.

See the following documents for a detailed explanation of how potential project impacts to grizzly bears are addressed for the project: Frozen Moose Terrestrial Biological Assessment, pages 80-88; Flathead National Forest Plan Guidelines FW-GDL-IFS-01 and FW-GDL-IFS-02; and Design Features #55 and #57 (EA, Appendix 4, pp. 174-177).

Please see also response to Contention 6.1 for more information on Biological Assessments, USFWS consultation, and the resulting Biological Opinion for grizzly bear.

In conclusion, the responsible official has adequately analyzed the effects of proposed temporary roads on grizzly bears and obtained USFWS concurrence on its determination.

Contention 6.9: Prescribed Burning and Grizzly Bears

An objector contends that prescribed burning in the late summer or fall with multiple helicopter flights below 500 feet would displace grizzly bears.

Objector(s): Peck

Response: The Frozen Moose Biological Assessment and EA disclose effects of helicopter use during prescribed burning on grizzly bears (BA, pp. 29, 32-33; EA, pp. 70, 72). Helicopter use would cause disturbance and may displace bears from preferred habitats, but design features are in place to minimize disturbance during Frozen Moose project implementation, per Forest Plan standards FW-STD-IFS-03 and guideline FW-GDL-IFS-01. Please see response to Contention 6.1 for more information on Biological Assessments, USFWS consultation, and the resulting Biological Opinion for grizzly bear. See response to Contention 9.2 for more information about helicopter use in Recommended Wilderness.

Contention 6.10: Roads and Grizzly Bears

Multiple objectors claim that the responsible official inadequately analyzed the impact of roads on grizzly bears which do not maintain on-the-ground conditions (2011) that have contributed to the growth and expansion of the NCDE grizzly bear population; did not consider best available science regarding grizzly bears and roads; and by assuming that unauthorized roads are impassible.

Objector(s): SVC, Peck, WEG

Response: Forest plan standard (FW-STD-IFS-03) allows temporary changes to access management conditions for projects and requires the 10-year running average for secure core to not exceed a limit of 2 percent temporary decrease per bear management subunit. "Temporary roads would be made impassable to motorized use prior to additional roads being opened within a subunit. It was determined that these measures will reduce the intensity and duration of the effects to grizzly bear secure core" (Frozen Moose Updated Environmental Assessment, p. 13).

The white paper *Effectiveness of Road Closures on the Flathead National Forest* in the project file reports that annual monitoring of road closures from 2005 through 2010 found an average of 9.5 percent of barrier devices were ineffective in preventing unauthorized use. Further, "the grizzly bear population was growing and expanding in distribution during the time period when this level of road closure ineffectiveness was occurring. There is no evidence that road closure ineffectiveness is having a negative effect on the grizzly bear population on the FNF." The level of incidental take associated with temporary roads in the Frozen Moose Project is consistent with the US Fish and Wildlife Service 2017 programmatic biological opinion and 2018 revised incidental take statement for grizzly bear. Please see response to Contention 6.1 for more information on Biological Assessments, USFWS consultation, and the resulting Biological Opinion for grizzly bear.

Forest-wide standard FW-STD-IFS-02 addresses the open motorized route density or total motorized route density on National Forest System lands during the non-denning season within bear management subunits in the NCDE primary conservation area. Please see response to Contention 10.2 for more information on closed roads and TMRD.

The responsible official adequately analyzed the effects of proposed temporary roads on grizzly bears and properly consulted with the USFWS in compliance with NEPA and the Endangered Species Act.

Contention 6.11: Habitat Connectivity for Threatened and Endangered Species

One objector contends that security corridors for T&E species were not delineated on project area maps. Another objector similarly contends that no work should be implemented in riparian areas (RMZs) due to concerns about ecosystem connectivity and movement corridors for grizzly bear.

Objector(s): Richard Hildner, Peck

Response: The proposed action, which includes design features, is consistent with the 2018 Flathead National Forest Plan (BA, pp. 80-88; BO, pp. 2-3).

Analysis supporting the Frozen Moose BA addresses connectivity of forested cover for wide-ranging wildlife species including grizzly bear (Project file, *Connectivity of Forested Cover Frozen Moose Project*). GIS mapping and habitat modeling for the proposed action show consistency with Forest Plan guidelines for riparian zones and habitat connectivity (FW-DC-TE&V-19; Guidelines HU G3, HU O2, and HU O4; Objective All O1; FW-DC-RMZ-06).

Please see response to Contention 6.1 for more information on Biological Assessments, USFWS consultation, and the resulting Biological Opinion for grizzly bear.

I conclude the responsible official properly considered and disclosed the effects of the proposed action on T&E species, including habitat connectivity.

Contention 6.12: Protection of Canada Lynx

Two objectors contend that the responsible official fails to project lynx and lynx critical habitat since this project destroys and adversely modifies Canada lynx habitat, which requires an exemption by the Endangered Species Committee for these acts.

Objector(s): Peck, WEG

Response: Biological assessments were prepared by biologists and disclose effects of the project on endangered and threatened species (BA; Draft DN, pp. 22-23). Under provisions of the Endangered Species Act, Federal agencies must seek to conserve endangered and threatened species and to ensure that actions are not likely to jeopardize the continued existence of any of these species. It was determined the Frozen Moose Project may affect, likely to adversely affect Canada lynx and Canada lynx critical habitat (Draft DN, pp. 22-23).

The project record includes background information on habitat analysis and best available science (Project file documents Canada Lynx Consideration of New Science, Canada Lynx Existing Condition, Canada Lynx Effects Analysis). All proposed vegetation treatment areas were reviewed to assess whether they are potential lynx habitat. Habitat conditions were verified with field checks by wildlife biologists in addition to GIS habitat modeling (Canada Lynx Existing Condition, p. 7).

Critical habitat characteristics were quantified for both current condition (Canada Lynx Existing Condition) and expected condition after proposed treatments (Canada Lynx Effects Analysis). Direct, indirect, and cumulative effects for Canada lynx were analyzed and disclosed in the Biological Assessment (p. 11-28). Rationale for determinations is summarized in response to Contention 6.1.

Please see response to Contention 6.1 for more information on Biological Assessments, USFWS consultation, and the resulting Biological Opinion for Canada lynx and its critical habitat.

The responsible official adequately analyzed the effects of the proposed action on Canada lynx and Canada lynx critical habitat, and properly consulted with the USFWS in compliance with NEPA and the Endangered Species Act.

Issue 7: Watershed and Riparian

Contention 7.1: Riparian Management Zones

An objector contends that the responsible official did not respond to his comments regarding the protection of management zones to ensure that the landscape is protected. The objector also states that the comment listed in the draft decision notice was not the comment he made.

Objector(s): Peck

Response: This objector contends that the Frozen Moose Project will fail to protect Riparian Management Zones (RMZs). The objector argues that there is a lack of a science-based justification for project activities within RMZs. By stating that the project [will result in] a failure to protect RMZs, it is implied that project specific BMPs are insufficient and/or incomplete to assure continuity of riparian and floodplain processes (thermal buffering, flood energy attenuation, etc.) from project implementation. Within the objection, it is noted that the specific reason for RMZ treatment is to address fire concerns in the Wildland Urban Interface (WUI) and that the sites have naturally evolved to achieve this desired management end.

Riparian and wetland vegetation and floodplain management are governed by multiple regulatory authorities at both the federal and state level. Existing guidance directs management in various ways, from directly addressing riparian vegetation condition to protecting riparian function and associated processes to protecting species associated with these areas. Some pertinent Federal authorities include, but are not limited to, The National Forest Management Act, Executive Orders 11988 (Floodplain Management) and Executive Order 11990 (Protection of Wetlands), Section 404 of the Clean Water Act, and The Endangered Species Act. In effect, the regulatory burden required by all federal land management activities is to ensure protection, if not improvement, of riparian condition and associated ecosystem services. The 2018 Flathead Forest Plan contains several RMZ-specific components that tier to these various umbrella authorities and further refine that direction. Of note is that none of these authorities preclude active management within these ecosystems; the Flathead Forest Plan contains components designed to promote achievement of desired conditions through active management while ensuring that adverse resource effects are not sustained.

Analysis of anticipated RMZ effects associated with the Frozen Moose project can be found within both Effects to Aquatic Ecosystems and Forested Vegetation portions of the EA. Within the Effects to Terrestrial Ecosystems and Vegetation section of the EA (specifically, pages 36-40), disclosure of anticipated response to proposed silviculture treatments is discussed, including species composition and stand structure, growth dynamics, and anticipated response to future disturbance. The analysis is based on best science as it relates to ecosystem succession and disturbance processes.

Within the Aquatic Ecosystems documentation in the EA, the analytical framework for evaluating riparian areas includes analysis of multiple indicators that may adversely influence riparian areas, particularly effects associated with roads crossing riparian areas and sediment delivery stemming from both roads and forest harvest. Modeled sediment estimates were used in tandem with the number of road/riparian crossings as a risk indicator for RMZ impairment. The analysis suggests that a) sediment loading during project implementation will be within acceptable bounds, and b) extent of forested cover influenced within the RMZ would be limited in extent, thereby ensuring riparian ecosystem protection throughout project implementation. Some components of riparian ecosystem response were dismissed from further review early in the analysis process, as itemized within Issues Dismissed from Further Analysis in the project record and discussed within comment response to the Draft EA (For example, comment E-21 in the Draft DN, p. 68). In direct response to Comments from the objector, further evaluation of blowdown potential stemming from project activities was conducted and determined to be of no concern.

Anticipated BMP effectiveness within the analysis was demonstrated through a) direct citation of local monitoring information, b) analysis of process-based model outputs determining efficacy of proposed BMP measures, and c) citation of literature either directly or through tiered citation to the 2018 Flathead Forest Plan EIS.

Taken together, I find that analysis of effects to RMZs within the Frozen Moose project complies with all relevant law, regulation, and policy related to riparian area management.

Issue 8: Vegetation

Contention 8.1: Greater than 40-acre Openings

An objector contends that the responsible official violated NFMA and the planning rule by having openings greater than 40 acres in size. (Units 35, 47, and 118) nor does the responsible official properly analyze the impacts to wildlife because analysis was tiered to the forest plan.

Objector(s): FOWS

Response: The Region 1 Supplement to the Forest Service Manual (FSM) 2471.1 states that a newly revised Forest Plan under the 2012 Planning Rule may establish new maximum opening size exemptions which may be used without 60-day public notice and Regional Forester approval. The Flathead National Forest identifies these maximum opening sizes as part of the Forest Plan under Standards FW-STD-TIMB-07 on pages 74-75. The Regional Supplement provided requirements to be part of the project file for exceptions to the 40-acre limit. In order to meet the compliance requirements of the Forest Plan, the use of regeneration harvests greater than the 40-acre maximum must be necessary to achieve the desired conditions for the plan area. In the case of this project, these include providing for forest patterns and patch sizes that are consistent with natural disturbance regimes. The rationale is detailed on page 46 of the EA under the heading Landscape pattern and forest connectivity. More specifically, it states that larger openings would be consistent with natural disturbance regimes and would create forests that are more resistant and resilient to disturbance.

The sizes of the units in the proposed action are within the limits by potential vegetation type identified in the 2018 Forest Plan and meet the necessary justification, therefore a 60-day public notice and Regional Forester approval are not required.

I conclude the responsible official complied with the forest plan, the 2012 Planning Rule, and NFMA.

Contention 8.2: Thinning Within Wedge Fire Area

An objector contends that mechanical thinning of reproduction resulting from the Wedge Fire, should be carried out with sufficient funds to reenter the treated stands and thin out the clumps to release the dominant trees.

Objector(s): Richard Hildner

Response: The objective of the commercial and precommercial thinning treatments are described in the EA (p. 13) and Draft DN, Appendix A (p. 27). While Table 2 in the EA references these treatments being funding dependent, the objectives of why they are to be carried out are clearly stated. Thinning these areas and other areas impacted by the Wedge Canyon Fire and other fires in the North Fork especially in the WUI has been occurring over the last 10 years via other projects (like Red Whale). The responsible official expects to continue to find funding to do this important work.

Contention 8.3: Use of Logging in Light of Climate Change

An objector contends that the responsible official attempts to replicate past conditions created by fire using logging. In light of climate change lands that would be seed tree logged may not regrow due to increased temperatures, which is in violation of NFMA Section;6(g)(3)(E)(ii)).

Objector(s): FOWS

Response: NFMA addresses timber harvest and requires adequate restocking of timber lands within 5 years after harvest. Forest Plan Standard FW-STD-TIMB-02 addresses this issue as well as site-specific silvicultural prescriptions related to restocking levels. This standard is also referenced on pages 19-20 of the Draft Decision Notice and FONSI. The regeneration success rate of the Glacier View District is described on page 43 of the EA (>90% within 5 years). Page 43 of the EA also describes the responsible official's plan for artificial and natural regeneration in units treated by the proposed action.

Direction in FSM 2400, Chapter 2470 (Washington Office and Region 1 Supplement), which the responsible official is required to meet, describes the minimum stocking surveys and schedule required, as well as required measures if areas are not sufficiently stocked to standards. Adherence to the FSM

requirements will therefore include monitoring of regeneration sites and adaptive management in the event of unsuccessful regeneration. While these requirements of FSM 2400 are not specifically related to climate change, they include monitoring and promote adaptive management strategies.

The responsible official complied with NFMA related to assurances of adequate restocking within 5 years of completion of harvest.

Contention 8.4: Amount of Old Growth

An objector disagrees that 2% old growth across the project area is adequate when compared to historic old growth on the Flathead National Forest. They further take issue with failure to identify patch size and arrangement of old growth within the project area.

Objector(s): FOWS

Response: The quantity of verified old growth and the methods used to classify these areas is identified on pages 33-34 of the EA. The same section of the EA also describes the process by which a stand is classified as old growth and how this classification requires a site visit from either field-sampled stand exams or field observations by a Silviculturist. Additional areas may exist within the project area but are not associated with proposed project activities and, as a result, were not a component of the field verification process. As a result, the 2% of the whole project area identified as old growth represents the best field sampled data currently available.

The old growth analysis also details the abundance (14% of project area) and condition of late seral stands, which are relatively close to development into stands which may qualify as old growth based on Forest Service Region 1 old growth classifications. The EA references a map within the project record (Map 8 of the Terrestrial Ecosystems and Vegetation files). The late seral stands are included in Map 8. Table 14 on page 33 of the updated EA provides data related to old growth and late seral forest patch size. This includes acres, number of patches, minimum, maximum, and mean patch size. This data along with Map 8 in the project record provide patch size and spatial arrangement.

Issue 9: Wild and Scenic

Contention 9.1: Wild and Scenic Rivers

An objector contends that there will be adverse impacts to the Wild and Scenic River Corridor and objects to proposed activities in the scenic segment of the Upper North Fork due to potential displacement of wildlife (bald eagles and great blue herons), as well as negative impacts to river users in the corridor.

Objector(s): Sierra Club

Response: The Wild and Scenic Rivers (WSR) Act (Public Law 90-542: 16 U.S.C. 1271) requires the agency responsible for managing a WSR to thoroughly define the Outstandingly Remarkable Values (ORV) and to protect the river's free-flowing condition, water quality, and ORVs for designated rivers. On the scenic portion of the North Fork of the Flathead the following ORVs were identified: Fisheries, Geologic, Water Quality, Wildlife, Botanic, Recreation, Scenic, Historic, Ethnographic (Outstandingly Remarkable Values Assessment January 2013).

Although the objector does not specifically reference the ORVs, the concerns raised about recreation and wildlife are closely related. The responsible official addresses the objector's concerns in the EA.

The EA states that under the proposed action "the Upper North Fork will continue to offer a wide range of summer and winter recreational opportunities. Mechanical noise from vegetation management activities will likely be heard from campers and floaters in the Upper North Fork and could disrupt the desired user experience. However, design features dictate that these activities would be limited for much of the highest use period of the Upper North Fork, from mid-June to mid-July (see design features)" (**p.** 147). Design Feature 74 **s**tates**, "**To reduce interruptions to visitors' quiet experience of the North Fork of the Flathead River, vegetation management activities occurring in units within the designated Wild and Scenic River corridor will be conducted in a manner to minimize auditory disturbance. Recreation staff must be consulted prior to implementation of activities between June 15 and July 15 in the following units: 288, 287, 276, 251m, 251h, 246, 102, 101, 233, and 93**"** (p**.** 178).

Concerning wildlife, the EA states that vegetation management activities are designed to maintain or improve habitat diversity and that this is an important component of the wildlife ORV (p. 147). The objector notes bald eagles and great blue herons in particular. The wildlife section of the EA (Page 174 – 177) establishes design features that address habitat connectivity and disturbance. Specifically, Design Feature 50 reduces the risk to nesting bald eagles because project activities will not occur within 0.25 miles of "very large trees used as active nest sites from February 1 to August 15." Design Feature 52 adds that "If an active great blue heron nesting rookery is discovered near proposed activities, those activities would not occur within 0.2 mile of the active rookery from March 15 to August 1 to reduce the risk of disturbance to nesting great blue herons ."

In the EA, the responsible official addresses the objector's concerns related to impacts on recreation experiences and wildlife. Design Features 50, 52, and 74 address these concerns.

I find the proposed action complies with the Wild and Scenic River Act and can be carried out in a way that protects wildlife and river user experience.

Issue 9: Wilderness

Contention 9.2: Use of Chainsaws and Helicopters in Recommended Wilderness

The objection is to the use of mechanized equipment including chainsaws and helicopters in the Tuchuck-Whale Recommended Wilderness area because this is a violation of the Wilderness Act, Forest Service Regulations, and the presence of crews and the use of chainsaws will have impacts on the visitor experiences.

Objector(s): Sierra Club and Peck

Response: Because the project area is within recommended wilderness and not designated wilderness, the management of the area is guided by the Land Management Plan rather than the Wilderness Act. The 2012 Planning Rule 36 CFR 219.10(b)(iv) requires the management of recommended wilderness "to protect and maintain the ecological and social characteristics that provide the basis for their suitability for wilderness designation." (FSH 1909.12 Chapter 74.1, Land Management Planning Handbook – Wilderness) provides further guidance for developing plan components for recommended wilderness. Both the planning rule and the Forest Service Handbook are directed at the plan components and not project implementation.

The Flathead National Forest Land Management Plan (Forest Plan) states that "Mechanized transport and motorized use are not suitable in recommended wilderness areas." Objectors state they object "to the use of mechanized equipment including chainsaws." Forest Plan direction is in conflict with project activities that would use "mechanized equipment and chainsaws".

The EA discloses that there will be temporary effects to the opportunities for unconfined or primitive and unconfined recreation and solitude but that these would be maintained over the long term.

I find the proposed action is in conflict with the Flathead National Forest Land Management Plan. The responsible official will modify the proposed action to conform to Forest Plan direction or prepare a Plan Amendment.

Contention 9.3: Whitebark Pine Treatments

An objector is concerned about whitebark pine treatments in proposed wilderness because the presence of crews and the use of chainsaws will have impacts on visitor experiences.

Objector(s): Suzanne Hildner

Response: Please see response to Contention 9.2.

Issue 10. Transportation Management

Contention 10.1: Cumulative Impacts of Road Use

An objector contends that the responsible official did not address the effects of dust, noise, and recreational motorized vehicles on new or re-opened roads.

Objector(s): Suzanne Hildner

Response: Cumulative effects are effects that overlap in time and space. Effects of dust and noise would be short-lived and relatively localized, and would therefore not combine with other past, present, or reasonably foreseeable actions outside the proposed action (40 CFR 1508.7). Regarding the forest user experience, *short term* effects were acknowledged in the Recreation section of the EA (p.152) which says "During implementation, the proposed vegetation management activities may pose brief and localized interruptions to dispersed recreation activities such as hunting, dispersed camping, and driving for pleasure. In particular, culvert replacement activities on the Red Meadow Road, Road 115, may require the road to be closed for 1-3 weeks from July through August, which would temporarily disrupt recreational activities. Design features require that during the road work period, contractors will allow for public access to occur between 4 pm on Fridays through 8 am on Mondays to allow for recreation use during high-use periods." Furthermore, none of the new or re-opened roads will be open to the

public, as is shown on pages 11, 23, 47, 64, and 71. Contract provisions (C5.31 or C5.314) are included in timber sale contracts that specify dust control procedures.

I find the responsible official adequately analyzed the impacts on forest user experience and that adequate safeguards exist to minimize effects of dust, noise and recreational vehicles on new or re-opened roads.

Contention 10.2: Impassible Roads and TMRD

An objector cites the EA which states that 13 miles of road are to be "returned to the NFS road system in an impassable state.". The objector contends this impassible state is a term arbitrarily created to claim road closure, so it does not count against the Total Motorized Route Density (TMRD)

Objector(s): Peck

Response: The objector contends that the Forest Service is arbitrary in its analysis of roads and their effect on the Grizzly Bear, violating the APA (Administrative Procedures Act) and ESA (Endangered Species Act).

The USFWS is the regulatory agency that enforces the Endangered Species Act, and the author of the NCDE Conservation Strategy for Grizzly Bear (Project file). The term 'Impassable' was used in this document with the same definition used in the Flathead Forest Plan and this project record. A BA was completed for this project, and the USFWS reviewed that assessment and provided a BO supporting the project as written.

I find that the forest has provided adequate rationale for the use of the term "impassable" in its analysis of effects and has adequately analyzed these effects to demonstrate compliance with NEPA. They have also completed consultation with USFWS on the project to receive a determination that the project will not jeopardize the species in compliance with ESA.

Contention 10.3: Increased Road Use and Fire

An objector disagrees that roads are needed to prevent fire and promote healthy forests because more roads will increase fire occurrence due to human caused ignition to areas people can access.

Objector(s): SVC

Response: While human caused ignitions do occur more often along open forest roads, this decision does not change public access, and therefore would not result in increased fire occurrence due to human caused ignition (EA, pp. 11, 23, 47, 64, 71; Draft DN, p. 34). The responsible official also addressed this concern in response to comments (Draft DN).

I conclude the responsible official adequately addressed the effects of the proposed action on access.

Contention 10.4 – Road Closures and Law Enforcement Capacity

An objector contends the responsible official addresses physically closing roads to ORV/ ATV and then leaves underfunded law enforcement to deal with the issue when closures fail.

Objector(s): Richard Hildner

Response: The objector contends that the forest violated NEPA by inadequately considering this comment when it was submitted during the comment period for the EA. The process for monitoring road closures and maintaining those closures is included in a white paper in the project file titled *Effectiveness of Road Closures on the Flathead National Forest.* The white paper documents progress toward a more secure process for closure. The responsible official also responded to the objector's comment on this issue in the Draft Decision Notice (pp. 51-52).

I find the responsible official appropriately considered comments.

Contention 10.5 – Temporary and Re-Opened Roads

An objector contends that because there are 22.7 new miles of temporary roads and re-opened historical roads, there are a number of problems that violate the forest plan and the 2011 baseline that include adding to the existing 518-mile backlog of roads requiring decommissioning to improve grizzly bear habitat security.

Objector(s): Peck

Response: The objector also says the fact that 13 miles of the Project's roads are reopened historical roads that were closed to provide grizzly bear security represents an unacceptable backsliding on the part of the Forest Service.

The NCDE Conservation Strategy provides for temporary increases in road densities within the Bear Management Units. Design features 30, 43-45 (Draft DN, pp. 41-46) ensure that all temporary re-opened historical roads will be stored following project activities. Timing restrictions in design feature 47 will reduce the risk of disturbance of the grizzly bear population. Design features 55-62 limit the timing of implementation processes to ensure compliance with the NCDE Conservation Strategy.

I conclude the responsible official has followed the NCDE Conservation Strategy with regard to road use.

Issue 11: Fire and Fuels

Contention 11.1: False Purpose and Need

An objector disagrees with the purpose and need to "Reduce tree densities and fuel loadings within the wildland-urban interface to result in less intense fire behavior near communities and facilitate safe wildland fire operations" because the objector states this relies on two false assumptions: 1. That fuels are the primary drivers of large, high-intensity fires when he claims, in reality, the primary driver of large, stand-replacing fires is heat, drought, and above all wind. 2. That the Forest Service can remove that threat with aggressive logging programs to lower forest density and fuel loading.

Objector(s): Peck

Response: The purpose and need statement ties directly to the 2018 Flathead National Forest Plan desired conditions within the wildland-urban interface. The responsible official provided rationale for the need for the project in the Frozen Moose EA (p.7), tying back to fire history from the in-depth 2014 Flathead Forest Assessment. Further supporting information is provided in the *Effects to Fire and Fuels* section of the Frozen Moose EA (pp. 128-133).

I conclude that the responsible official provided adequate rationale for the purpose and need of the project.

Contention 11.2: Unmet Requests for Fire/Fuels Information

An objector contends that the responsible official did not provide the acreage of backlogged prescribed burning and a definition of characteristic and uncharacteristic fire, neither of which are addressed in the EA.

Objector(s): Richard Hildner

Response: The objector alleges a failure of the Forest Service to respond to his request for the backlog of prescribed fire acres. The objector is questioning the ability of the responsible official to implement the prescribed fire acres. There is no record of the objector requesting this information during the comment period or prior to the objection filing period so the responsible official has not had opportunity to respond.

Contention 11.3: Wildland Urban Interface

Two objectors contend that the Wildland-Urban Interface (WUI) was inaccurately and arbitrarily inflated to stretch the amount of acres needing treatment.

Objector(s): Richard Hildner, Peck

Response: The Healthy Forest Restoration Act of 2003 defines WUI as an area within or adjacent to an at-risk community that is identified in recommendations to the Secretary in a community wildfire protection plan. The EA clearly states on page 2 and again on page 127 that the WUI for this project is mapped through the 2011 Flathead County Community Wildfire Protection Plan.

I conclude that the responsible official complied with policy and law by relying on the Flathead County CWPP-defined WUI, as per HFRA 2003.

Issue 12: Climate Change

Contention 12.1: Climate Change impacts on forest health

Objectors contend the responsible official does not address the effects of climate change on forest health and diversity.

Objector(s): Richard Hildner, FOWS

Response: The objector contends the analysis violated NEPA by failing to consider how climate change impacts forest health and diversity. The vegetation management analysis considers climate change impact to vegetation conditions in several points of discussion. In the *Affected Environment* section the EA acknowledges the need for an increase in western larch and white pine vegetation cover types because they are more resilient to disturbances of change such as climate change (Frozen Moose Updated Environmental Assessment, p. 27). Also, in the *Affected Environment* section, the landscape patterns are considered. The EA acknowledges that "High levels of mortality in many stands would increase within-stand structural diversity. However, these changes come at the cost of a landscape increasingly vulnerable to large-scale and high-intensity wildfire, and increasing loss of trees to insect and disease. Stressed trees would also be less resilient in the face of drought and other unforeseen weather and climate changes in the local area." (p. 38). Additionally, climate change was considered

again with respect to whitebark pine where, "Treatment would facilitate adaption to the new condition created by the presence of blister rust and predicted effects of climate change. This would be done by protecting trees with potential rust resistance, increasing cone production, creating opportunities for rust-resistant regeneration to establish, reducing risk from mountain pine beetle and fire, and making the stand more resilient to increased soil water deficits predicted to occur under future climates (FEIS, volume 1, p. 174). …. The treatment would reduce moisture competition, increasing resilience to summer soil moisture deficits that are predicted to occur increase during summer periods under future climates. The result would be a higher likelihood of whitebark long-term persistence on the site with its multiple cascading ecological benefits." (EA, p. 41).

The responsible official adequately considered climate change impacts to vegetation health and diversity.

Contention 12.2: Impacts to Climate Change

Objectors contend that the responsible official did not consider logging activities' impacts to climate change.

Objector(s): Richard Hildner, FOWS

Response: The objector contends the analysis violated NEPA by failing to consider impacts of logging activities to climate change. As stated in response to comments (Draft DN, p. 59), it is not appropriate to analyze the impacts of logging activities to climate change at the project scale, therefore the Frozen Moose project tiered to the Flathead Forest Plan EIS (EA, p. 4). Additional discussion will be included in the Final Decision Notice which will clarify how the Frozen Moose project activities fit within the impacts anticipated in the Flathead Forest Plan EIS.

I find that the responsible official's decision to tier to the Forest Plan EIS relative to the climate change analysis for the Frozen Moose Project was appropriate.

Issue 13: Roadless

Contention 13.1: Roadless Areas

An objector contends that the implementation of this project will result in the degradation of roadless characteristics with stumps and skid trails as well as impacting the habitats and habitat security of lynx, wolverine, grizzly bear and other wildlife.

Objector(s): FOWS

Response: Direct, indirect, and cumulative effects of the proposed action concerning roadless area characteristics are fully discussed and disclosed in the Frozen Moose EA, (pp. 134-140). The analysis area for effects to inventoried roadless areas (IRAs) from the proposed action and the no-action alternative is made up of the Mt. Hefty and Tuchuck IRAs (EA, p. 135).

Proposed activities in roadless areas consists of treating vegetation through a variety of methods including prescribed burns (EA, pp. 12-23). No temporary road construction or historical road reconstruction would occur within the IRAs and materials would be removed by skidding to access points on private land (EA, p. 134), consistent with the requirements set forth in the 2001 Roadless Rule (Final Rule, 66 Fed. Reg. 3243 (January 12, 2001) 36 CFR 294.12).

Proposed vegetation treatments in the IRAs are designed to remove the smallest trees and maintain a forest stocked with the largest available trees. Tree removal in units located within IRAs would primarily

occur within the small tree size class (0 - 9.9 inches diameter breast height (DBH)). Most trees that are removed will generally be 8 inches DBH or less (EA, p. 138). This is consistent with the requirements of the 2001 roadless rule that cut trees be "generally small diameter timber" (36 CFR 294.13(b)(1)). The cutting, sale, or removal of small diameter timber will maintain or improve one or more roadless characteristics consistent with 36 CFR 294.13(b)(1) (Frozen Moose EA, p. 138-140). Vegetation treatments proposed in portions of the Mt. Hefty and Tuchuck IRAs will restore certain characteristics of these areas' ecosystem composition and structure in accordance with 36 CFR 294.13(b)(1)(ii) (EA, p. 137).

Concerns about impacting the habitats and habitat security of lynx, wolverine, grizzly bear, and other wildlife are discussed and addressed in response to Contentions 4.2 and 6.1.