USDA United States Department of Agriculture | Forest Service | Helena National Forest | 2880 Skyway Drive Helena, MT 59602 406-449-5201

**File Code:** 1570 **Date:** March 1, 2012
**Route To:**

**Subject:** 1570 (215) A&L - ARO Letter - Bozeman Municipal Watershed ROD - Gallatin NF - AWR/NEC/MEDC - #12-01-00-0026

**To:** Appeal Deciding Officer

This is my recommendation on disposition of the appeal filed by Michael Garrity on behalf of the Alliance for the Wild Rockies, Native Ecosystems Council, and Montana Ecosystem Defense Council appealing the Bozeman Municipal Watershed Project Record of Decision on the Gallatin National Forest (GNF).

The Forest Supervisor's decision authorizes thinning and prescribed fire within strategic areas of the Bozeman and Hyalite drainages to achieve a meaningful reduction in potential fire severity and extent.

My review was conducted pursuant to, and in accordance with, 36 CFR 215.19 to ensure the analysis and decision are in compliance with applicable laws, regulations, policy, and orders. The appeal record, including the appellants' objections and recommended changes, has been thoroughly reviewed. Although I may not have listed each specific contention, I have considered all the issues raised in the appeal and believe they are adequately addressed below.

The appellants allege violations of the National Environmental Policy Act (NEPA), the National Forest Management Act (NFMA), the Endangered Species Act (ESA), the Clean Water Act (CWA), the Administrative Procedures Act (APA) and the Forest Plan. The appellants request that the decision be withdrawn. An informal disposition meeting was held on February 7, 2010, but no resolution of the issues was reached.

ISSUE REVIEW

**Issue 1. NFMA/Forest Plan Amendment / Forest Plan Compliance**

**Issue 1. Contention 1. The WUI designation effectively amends the Forest Plan in the project area without conducting the proper interdisciplinary analysis and public participation required for a significant Forest Plan amendment, in violation of NFMA, NEPA, and APA. However worthy the intentions of the Forest Service may be, the Project's Purpose and Need, Objectives, Desired Future Condition, and Project-specific actions are not specified in the Forest Plan.**

**Response:** The wildland urban interface (WUI) is commonly described as the zone where structures and other human development meet and intermingle with undeveloped wildland or vegetative fuels. The Gallatin County Wildfire Protection Plan (CWPP) identifies hazardous or potentially hazardous WUI areas (PF, Doc. 358, p. 5). The CWPP does not set programmatic

direction. The Gallatin Forest Plan provides management direction at a forest-wide scale and for each designated management area (F Plan, pp II-1 and III-1).

Identifying certain lands as being within the "wildland urban interface" or within a certain distance from communities in no way changes the forest-wide goals, objectives or standards, nor does it change any Management Area goals or standards. The project activities of prescribed burning and timber harvest meet the goals, objectives, and standards of the Gallatin Forest Plan, as outlined in detail for each management area in the Forest Plan Record of Decision (pp. 53 to 56). This was also included in the Forest Plan FEIS (pp. 1-17 to 1-19). The Fire and Fuels section in the BMW FEIS (p. 3-10) cites the Forest Plan's goals, standards, and objectives applicable to fire management, and then shows how the project complies with those (p. 3-25). The appellants concern over a change in management priority was also answered directly in the SFEIS (Appendix B - Response to Comments, pp. 265 to 266).

The appellant asserts "the Project's Purpose and Need, Objectives, Desired Future Condition, and Project-specific actions are not specified in the Forest Plan." Site specific or project-specific actions are not included in Forest Plans, but are guided by them. Management areas in the Gallatin Forest Plan have a goal. "Goal" is defined in the Gallatin FP as a concise statement that describes a desired condition to be achieved. It is normally expressed in broad general terms and it is timeless in that it has no specific date by which it is to be completed (Forest Plan, p. VI-13). These goals are not changed by this project, or by identifying lands that have fuel conditions that may threaten a community or the Bozeman Municipal Watershed. Project Record (Doc. 196) displays each forest wide and management area standard and how it is met with the BMW project.

The Bozeman Municipal Watershed Project Decision and the purpose of it are fully consistent with and supported by national and regional policy and the Gallatin Forest Plan. A non-significant site specific Forest Plan Amendment was included in the decision to address visual quality objectives. Otherwise, no Forest Plan amendments were determined necessary.

**Issue 1, Contention 2. The vegetative management practices chosen by the Gallatin National Forest for the Bozeman Municipal Watershed Project are not defined in the Forest Plan, with standards and guidelines, nor are the reasons for the choices, in violation of NFMA's Regulations at 36 CFR 219.15 and 36 CFR 219.27 and in violation of NEPA. The Vegetative Management Practices implemented in the Preferred Alternative (Alternative 6) outlined in the EIS/ROD are neither "tiered" to, nor consistent with, the current Forest Plan.**

**Response:**
The vegetation management practices included in Alternative 6, the alternative selected in the ROD, as described in the FEIS (p. 2-11), include:

- Burning (defined in the Forest Pan, pp. VI-4 and VI-27)
- Mechanical cutting and piling (various silvicultural systems defined in the Forest Plan, pp. VI-5 to VI-45, and Appendix A, Vegetation Management Practices)
- Partial harvesting (various silvicultural systems from thinning to individual tree selection, defined in Chapter VI and Appendix A of the Forest Plan).

These treatments, and why they are chosen, are clearly explained in the FEIS, Chapter 1. For example, "cutting small diameter trees and leaving larger ones to reduce the fuel loading and break up the vertical and horizontal composition of the fuels," "Mechanical or hand cutting and piling smaller, younger trees would reduce the density of small diameter stands," and, "Prescribed burning in less dense stands of trees to reduce ground cover and smaller trees in order to keep the stands in an open condition with less chance of rapid fire spread" (FEIS, p. 1-16).

These actions are designed to meet the purpose and need of the project, as described in the FEIS (pp. 1-13, 1-14, and 3-9). The Forest Plan allows for timber harvest and vegetation management in suitable lands, and lands unsuitable for timber production lands to achieve desired conditions for multiple use values other than timber production. The Forest Plans do not prescribe vegetation management practices for any site-specific project. The Forest Plan and the Forest Plan Record of Decision state that the final decision for the vegetation management practices (silvicultural system) chosen for each vegetative type and circumstance shall be made by a certified silviculturist (PR, Doc. 18, pp. A-1, A-10) and based on site-specific evaluation of biological and management factors at the project level (Gallatin FP ROD, pp. 9 and 26). Forest Plan contains direction that speaks to methods for implementation of vegetation management (PF, Doc. 18, pp. II-2, 4, 6, 19-20, 23, 28). Diagnoses and prescriptions written by the certified silviculturist on the interdisciplinary team are in the project file (Doc. 542).

In this contention the appellants cite a version of the 36 CFR 219 regulations that are no longer in effect or apply to site specific decisions. On December 18, 2009 the Department of Agriculture issued a final rule reinstating the National Forest System Land and Resource Management Planning rule of November 9, 2000, as amended (2000 rule) (74 FR 242 [67059-67075]). The 2000 rule states: Projects implementing land management plans must comply with the transition provisions of 36 CFR §219.35, but not any other provisions of the planning rule. Projects implementing land management plans and plan amendments, as appropriate, must be developed considering the best available science and the Forest Plan.

The vegetation management practices to be applied in this project are fully consistent with the Gallatin Forest Plan and used the best available science.

**Issue 1, Contention 3. The appellants allege WUI vegetative management practices require "future treatments (approximately 30-40 years from today)" to maintain "desirable stand structures so control and or intensity of fire is maintained at desirable levels" (FEIS, p. 3-245). This combination, and duration, of vegetative management practice represents a significant programmatic departure from the Management Area goals, objectives and standards. The BMWP represents "scheduled changes" that "significantly alter the long-term relationship between levels of multiple-use goods and services projected under planned budget proposals as compared to those projected under actual appropriations" without a Forest Plan amendment, in violation of NFMA.**

**Response:** The appellant misquotes the FEIS. The FEIS (p. 3-245) states, "future treatments (approximately 30 to 40 years from today) **will be considered** to maintain desirable stand

structures" (emphasis added). It does not say they are required, but acknowledges the reality that all stands of trees are dynamic. The description of the decision does not include an entry in 30 to 40 years (ROD, pp. 7 to 11). The FEIS (p. 2-11) states the approximate duration of the proposed activities is within a 5 to 12 year timeframe.

The Forest Plan (pp. VI -1 to VI-45) does not prescribe vegetation management practices, but does define them. The final decision for vegetative management practice (silvicultural system) shall be made by a certified silviculturist (Forest Plan, Appendix A, p. A-1). Selection of the silvicultural system will be based on site-specific evaluation of biological and management factors at the project level (Forest Plan ROD, pp. 9, 26). The combination of management practices in the BMWP are very common on the Gallatin, in the Northern Region, and across the western United States, and do not depart from Management Area goals, standards, or objectives. The Forest Plan allows for timber harvest and vegetation management in suitable lands, and on lands unsuitable for timber production in order to achieve desired conditions for multiple use values other than timber production.

The Forest Plan projected a budget for the First Decade, beginning in FY 1987 (FP, Appendix K). The implementation schedule in Appendix I of the FP includes years 1987 to 1990. Appendix I states that an amendment of the Forest Plan will be required if the harvest for the first decade were to exceed 210 MMBF. The Forest Plan did not project a schedule for multiple use goods and services or a planned budget for the present decade. This project does not constitute a change in any long-term relationship with goods and services based on planned budgets or actual appropriations. In fact it is meant to sustain goods and services by reducing the potential severity and extent of future wildland fires occurring in the municipal watershed or adjacent to private lands (FEIS, pp. 1-10 to 1-14, and ROD, pp 5 and 6).

The BMWP's thinning and burning are in compliance with the Forest Plan, and do not constitute a change to Gallatin Forest Plan management area direction.

**Issue 1, Contention 4. The appellants allege they reviewed the statutory and regulatory requirements governing National Forest Management projects, as well as the relevant case law, and compiled a check-list of issues that must be included in the EIS for the Project in order for the Forest Service's analysis to comply with the law. We sent this check list in with our comments and the Forest Service did not respond to all of the issues we raised in violation of NEPA, NFMA and the APA.**

**Response:** The Forest did not receive a checklist for the BMWP during any of the comment periods. It did receive letters from AWR, MEDC, and NEC. These letters are in the project record (Docs. 160, 161, 163, 165, 166, 167, and 169). The Forest responded to these letters in the Response to Comments (FEIS, Appendix C, and SFEIS, Appendix B).

**Issue 1, Contention 5. The appellants allege the BMWP FEIS and ROD fails to disclose annual monitoring data or any evaluation of monitoring results that determine how closely Management Area standards are being followed. Not one of the MAs classified as "suitable" explicitly mentions WUI treatments, ie. timber harvest for the purpose of thinning stands to reduce the severity and extent of potential wildfire in the Bozeman**

**Municipal Watershed. The WUI thinning specifications and prescribed burning strategies for the BMWP fail to comply with MA goals, objectives, standards and guidelines. These differences should have been identified, evaluated and documented by fulfilling normal annual Forest Plan monitoring requirements. This was not done in violation of NEPA, NFMA, and APA.**

**Response:** The project does not require a separate monitoring effort. Forest Plan monitoring is conducted at a programmatic level, not at the project level. The appellant cites 36 CFR 219.12. This regulation currently applies to "Collaboration and cooperatively developed landscape goals" for forest planning efforts. Current 36 CFR 219 regulations are easily accessible on the internet. Appellant seems to be citing regulations that have not been in effect for more than 11 years.

Past monitoring results are used in effects analyses for specific resources. Thinning and burning are not activities new to the Gallatin Forest. Forest Plan Monitoring reports were reviewed and are included in the Project File (Docs. 253, 650, 916, and 931). Monitoring is not performed during the planning of a specific project to determine whether the proposed management actions are consistent with the Plan. It is done by comparing past actions and/or their effects to the relevant direction contained in the Plan. Forest Plan monitoring provides information to the decision maker and the public on the progress and results of implementing the Forest Plan (Forest Plan, p. IV-3). There is a discussion of project monitoring in the Record of Decision (pp. 17 to 18). The project has not yet been implemented so there is nothing to monitor related to compliance with the Forest Plan.

In response to the second point, a purpose and need is developed for every project subject to a NEPA analysis. The Forest Plan is not meant to foresee or prescribe every purpose for an action in a management area. MA direction does say what activities are allowed; harvest and burning are allowed. Wildland urban interface (WUI) was not part of the lexicon in 1987. Designation of WUI in a County Wildfire Protection Plan does not indicate a change to the Forest Plan or Management Area goals, objectives, standards, and guidelines. The only thing the identification of an area today as being WUI does is increase the priority of analyzing the need for treatment there (FEIS, pp. 1-10 to 1-13). The actions in the BMWP are consistent with Forest Plan direction. The project and analysis are in compliance with NEPA, NFMA, and APA.

**Issue 1, Contention 6. There is little connection between the treatments proposed in the BMWP and MA5, MA 7, MA 8, and MA9 goals.**

**Response:** The thinning specifications and prescribed burning strategies for the BMW project are consistent with Management Area standards and begin to move the area toward some of the goals. Forest Plan consistency discussion and listing of references to Forest Plan compliance are found in the ROD (pp. 53 to 57). Forest Plan consistency refers to both forest-wide and management area direction. There are a multitude of places throughout the FEIS that describe the relationship of the Gallatin Forest Plan with the BMW project and various resources potentially affected (FEIS, pp. 1-17 to 1-19, 2-11, 2-15, 2-20, and 2-22, 3-10, 3-25, 3-196, 3-215 to 3-216, 3-252 to 3-253, 3-258, 3-281, 3-299, 3-310, 3-349, 3-357, 3-376, 3-383 and 3-392; Supplemental FEIS pp. 11, 16, 29 to 33, 40 to 42, 62 to 63, 66, 71, 84, 132 to 133, 136, 146 to 147, 177 to 178, 186, 197, and 203).

The FEIS (Chapter 2) and ROD (p. 8) include a site-specific Forest Plan Amendment for visuals in the preferred alternative and mitigation to implement FP standards. Treatments proposed in the project are not in conflict with management area goals.

**Issue 1, Contention 7. The appellants allege MAs 12 and 17 are classified "unsuitable" for timber production with emphasis given to maintain and improve wildlife habitat, and grazing lands with important big game habitat. Clearly, meeting the wildlife goals is the focus of these MAs, not manipulating fuel loads to meet entirely new Objectives and Desired Future Conditions not found anywhere in Forest Plan.**
**MA 12 requires a qualitative and quantitative assessment of the habitat for "a diversity of wildlife species" before selecting and "scheduling vegetative management practices such as prescribed fire, to maintain or improve the quality and quantity of wildlife habitat." The BMWP fails to demonstrate how vegetative treatments for WUI can be considered proactive. The BMWP fails to provide net beneficial to wildlife, wildlife habitat, or recreation values, in violation of MA 12 standards, and the Plan.**

**Response:** As pointed out by the appellant, MA 12 includes a standard to schedule vegetation management practices, such as prescribed fire, to maintain or improve the quality and quantity of wildlife habitat (Forest Plan, p. III-37). While such is not mandated by the MA 12 direction, a qualitative and quantitative assessment of habitat for a diversity of species was conducted at the project level, and is included in the effects analysis of the FEIS and expounded upon for big game in the Supplemental FEIS (pp. 10 to 30). It is revealed in the analysis that presently just one percent of the BMW analysis area provides non-forest foraging areas for deer and elk, and that open forest types provide the majority of foraging opportunities. Thomas recommended a forage:cover ratio for big game of 60:40. The existing condition is presently 16:84. The selected alternative will change that ratio to 34:66, and while still not optimum, is an improvement for big game habitat (SFEIS, p. 27).

The FEIS (p. 3-265) states, "all existing recreation opportunities will continue to be available after the project has been implemented and completed but in a slightly modified visual setting." The ROD (pp. 50 and 55) discusses NFMA consistency requirements for project-specific findings, including harvest in MA 12 and suitability for timber production. The project does not promote timber production in MA 12. There are no proposed treatments in MA 17. The decision is consistent with MA 12 direction and moves the project area toward MA 12 goals.

**Issue 2. The appellants allege the Forest Service has disregarded the best available science regarding protecting Bozeman's watershed. They cite *Fire Ecology in Rocky Mountain Landscapes*, by William Baker to indicate that the Forest Service is over stating the frequency of wildfire. They further contend that the project violates NFMA by not following the best available science and not meeting the purpose and need of the project.**

**Response:** The scientific literature used for the BMW project and the rationale for treatment are provided in the Literature Cited section found at the end of Chapter 4 in the FEIS, and in the ROD. Science considered includes the research the appellant presented in the appeal. As stated in the FEIS and ROD (ROD, pp. 51 to 53), the reference documents, guides, and research cited in the FEIS to support the fire and fuels analysis are sound, reliable, and current information that

has been thoroughly peer-reviewed by fire behavior analysts, researchers, and practitioners in the field of fire behavior, fire ecology and fire management.

The goal of the BMW decision is not to "fire-proof" the entire project area. As stated throughout the FEIS and ROD, the goal is to change fire behavior to increase potential for surface fire and decrease potential for crown fire and to reduce spotting from lofted firebrands (burning embers) (for example, see ROD, pp. 5 to 6). Protecting the municipal watershed is the primary purpose and need for the actions by changing the potential fire behavior, reducing hazardous fuels conditions and reducing fire severity.

Consideration of William Bakers book was explicitly discussed in the ROD (p. 53). Science presented by the appellants and others during public involvement was considered and evaluated for relevance.

The appellants further contend that "the Forest Service should have discussed published scientific papers, which make findings based on actual scientific studies, not simply rely on computer models and internally produced, unpublished documents written by land managers." Adequate research and documentation was used by the responsible official and is found in the Literature Cited section at the end of Chapter 4 in the FEIS, and the ROD. The best available science that the Forest considered includes research presented by the appellants.

I find that the Gallatin followed a transparent public scoping process to gain insight from stakeholders in NFS lands management. They subsequently acknowledged and reviewed the research presented by those stakeholders, and then shaped or modified the project to meet those concerns. Because this public process was followed and is well documented in response to comments in the FEIS and the literature cited I find that the responsible official followed accepted public input processes to determine the best treatment for lands under their care.

I further find that the Forest Supervisor complied with all applicable regulations to review materials presented by the stakeholders and modify their course of action based on that input. The responsible official, Mary Erickson, retained elements of the project based on sound data gathering analysis and reports. The best available science was used in the BMWP analyses.

**Issue 3. Fuels and Forest Health**

**Issue 3, Contention 1. The appellants allege the ROD and FEIS fail to deal "lucidly" with the hazardous fuels issue on the appropriate landscape scale. None of the "so-called" cumulative effects discussions adequately discloses the effects of past management activities.**

**Response:** The purpose and need for this project was designed to reduce the risk of severe and extensive wildfires in the Bozeman Municipal Watershed thereby reduce the risk to life and property in the project area. It was designed to reduce fuels along road corridors, and proved safer conditions in the event of evacuations; it is designed to strategically modify vegetative fuel conditions to lower the risk of severe wildfire and excessive subsequent sedimentation reaching the municipal water treatment plant. The appellants mischaracterize the emphasis on forest

health. There is analysis of insect and disease conditions, but forest health is not a primary purpose of the treatments. Appropriate temporal an spatial bounds were analyzed. The Existing Condition section highlights the current insect/disease condition for the area as a whole, taking into account age and successional stages which are direct results of previous management or disturbance, or lack thereof.

The project area existing condition is comprised of Douglas fir, subalpine fir and lodgepole pine with whitebark pine, spruce, and aspen (FEIS, p. 1-7). The likelihood of having a stand replacing "catastrophic" wildfire through this area if it remains untreated is high. "Much of the vegetation along both sides of the Bozeman and Hyalite roads are in a high fire hazard condition" (FEIS, p. 1-9). Wildfire in the project area could result in a High Severity-type fire which would threaten water quality.

High Severity Fire has the potential to increase sediment loads in the municipal watershed and increase nutrient loading, and indeed destroy habitat and recreation values for many years into the future. The BMWP clearly demonstrates how the project treats the WUI as a proactive measure. The current conditions of the stands in the project area places homes in the interface at risk and creates a hazardous one way in and one way out situation for residents.

The Fire and Fuels analysis and the Forested Vegetation analysis considered past, current, and reasonably foreseeable future actions. Past management is reflected on the conditions described in the purpose and need, background discussion, and in the modeling based on the current condition. The Farsite program computer runs mapped the fuel conditions at the landscape scale before treatment (Alternative 1, the No Action Alternative) and after treatment for each of the action alternatives. The runs or 'simulations' are modeled to show potential effects to treatments and a relative comparison between alternatives (FEIS, pp.2-26 to 30. I find the cumulative effects discussion is in compliance with NEPA.

**Issue 3, Contention 2. The appellants allege the "fuel reduction regime" was not a planning scenario dealt with in sufficient detail (if at all) during Forest Plan development, both the project-level and programmatic ecological and economic costs and impacts go unexplained and undisclosed. They go on to state that "Lewis and Clark NF" must disclose to the public just how much of the Forest is considered to be likewise "out of whack" in alleged "forest health" terms and more importantly, disclose how much of the Forest is to be treated for fuel reduction in a manner that emphasizes fuel conditions over native ecological processes.**

**They further contend the managed portion of the "Lewis and Clark National Forest" has been fundamentally changed, as has the climate, so the Forest Service must analyze how much land has been fundamentally changed forest wide compared to historic conditions, and disclose such information to the public in the context of an EIS by completing the Forest Plan Revision process.**

**Response:** The appellant confuses a fuel reduction decision with fire planning and confuses which Forest the decision covers. The contention refers to a different Forest altogether. It is not clear from the appeal to what the term "fuel reduction regime" refers. However, it appears this

contention goes back to whether the purpose and need and the proposed action are consistent with programmatic direction in the Gallatin Forest Plan.

The project is focused on reducing fuels in the municipal watershed to protect City of Bozeman's water source while following all applicable laws and regulations and the Forest Plan goals and standards. The documents analyze and display the potential impacts to the environment from the proposed action and alternatives, which include fuel reduction activities, but these actions and alternatives are not fire suppression activities. The potential impacts from the BMW Decision did not result in the need for any significant Forest Plan Amendments. The existing condition for forest health, fuel conditions and economics is included in Chapter 1 and 3 of the FEIS and the Final SFEIS. The project and analysis are in compliance with NEPA and NFMA.

**Issue 3, Contention 3. The appellants allege that in the Lands Council v. Cottrell case, number 2:09-CV-164-EJL-REB, the judge wrote in the order, "The Court also adopts the Report and Recommendation's remedy, that "to the extent the Forest Service decides to move forward with this Project, any future analysis of the Project's environmental impact must address the cumulative impact of fire and fire management under whatever policy is in place at the time the environmental impact statement is drafted." The assessment of cumulative impacts was not done in the BMW project NEPA documents. Therefore, this project violates NEPA, NFMA and APA.**

**Response:** As stated in the ROD and FEIS, fire management direction for prescribed fire and unplanned wildland fire is provided in the Gallatin National Forest Plan. Information concerning the cumulative effects report and the temporal and spatial bounds used for the fire and fuels analysis are included in the FEIS, and in the project record. The project has addressed the cumulative impacts of fire and fire management as found in the following: ROD, pp. 43 and 56; FEIS, pp. 1-11, 2-25, 3-10, 3-25, 3-26, 3-28; Final Supplemental FEIS, pp. 8 to 9; PF, Docs. 317 and 318. The cumulative impacts of the project are in compliance with NEPA.

**Issue 4. Alternatives Not Considered**

**Issue 4, Contention 1. The appellants allege the FEIS does not adequately explain why an intensive logging alternative was chosen when Alternative 4 (prescribed burning only) would achieve the same average flame length (2 feet) as Alternative 6 (see Table 2.2 of FEIS). Further, the FEIS does not adequately explain why an alternative was not fully analyzed that would have used a combination of prescribed fire and thinning of only very small diameter trees (e.g., no larger than 6 or 8 inches in diameter).**

**Response:** As explained in FEIS (p. 2-7), Alternative 4 was specifically created in response to scoping comments from the appellants requesting that the Forest consider an alternative limited only to prescribed burning and to consider an alternative with no additional roads. The FEIS (Appendix A) includes treatment descriptions for each alternative and shows that Alternative 4 treatments consist of precommercial thinning (i.e, thinning only small diameter trees) and broadcast burning (i.e., prescribed fire) only.

While this alternative was considered in detail (and was identified as the Environmentally Preferred alternative) the ROD clearly explains why this alternative was not selected (pp. 21, 25, 29, 38, and 41).

The appellants are correct that both Alternatives 4 and 6 would reduce a potential fire's average flame length to 2 feet (from a predicted 3 to 5 feet in the No Action Alternative). However flame length is not the only parameter of concern. The alternative comparison provided in FEIS (pp. 3-27 to 3-30, Table 2.2) includes multiple "Measures of Fire Behavior, Fire Size, and Fire Probability Related to the Purpose and Need for Action". These measures, besides average flame length, include: acres of Fuel Model conversion (resulting in reduced crown fire potential, flame lengths, and spotting distances); acres of altered fire type from crown fire to surface fire; potential fire severity and extent; probability of stand replacement crown fires; and overall range of flame length. With the exception of average flame length (as the Appellant points out), all of these measures would be improved by implementing Alternative 6 rather than Alternative 4.

Alternative 4 is less effective at reducing crown fire potential because treatment is focused on only those stands that can be prescribed burned without pretreatment, which naturally are the stands with the least crown fire potential in the first place. The Fuels Specialists' Report (PF, Doc. 316, p. 29) goes into great detail regarding the viability of Alternative 4 and includes a unit-by-unit comparison of common factors to determine the feasibility of prescribed burning. As disclosed in the report, it was recognized when this alternative was developed that "it may not be viable as the actual feasibility of doing so many prescribed burns in a 5- to 10-year timeframe is not realistic and may not meet objectives anyway" (FEIS, p. 28). As a result of the analysis, modifications were made to Alternative 4 which included dropping over half of the units from treatment (PF, Docs. 332 and 335). The analysis found Alternative 4 was the least effective of the action alternatives at meeting the purpose and need for the project because it would treat the fewest acres by far (about 3,300 acres versus 4,675 in the Selected Alternative) (ROD, p. 41); and, as discussed above, would be the least effective when considering all of the parameters for changed fire behavior and effectiveness toward meeting project objectives (FEIS, pp. 3-29 to 3-30).

Like Alternative 4, Alternative 6 was developed in response to public comments. It was developed between DEIS and FEIS to respond to comments regarding effects on wildlife habitat, potential weed spread effects on recreation, and sedimentation thresholds. The rationale for selecting Alternative 6 (modified) over Alternative 4 is discussed in the ROD (pp. 5, 6 to 9, 19 to 22, and 23 to 26). "Alternative 6…(was selected)…over the other action alternatives primarily because it provides the most realistic way to reduce the risk that wildland fires in this area would result in the type of ash and sediment levels that would compromise the water supply for the community of Bozeman. Alternative 6 is responsive to effectively meeting the purpose and need for action for protecting community water supply and reducing potential fire spread and intensity between National Forest System lands and adjacent private lands, while balancing high project costs from helicopter use, lack of local timber markets, and the high cost of prescribed burning in urban interface areas" (ROD, p. 7). Also Alternative 6 moves the treatment units toward the desired stand conditions for the area which are described in the silvicultural prescriptions (i.e., lowering lower basal area densities to help reduce insect attack (which means removing some

larger trees)) (PF, Doc. 542). The analysis of the alternatives and the ROD are in compliance with NEPA.

**Issue 4, Contention 2. The appellants allege the Forest also refused to study in detail any alternative that considered the impacts of the proposed actions on climate change in violation of NEPA, NFMA, the Forest Plan, and APA.**

**Response:** The Forest considered such an alternative and appropriately determined detailed study was not warranted in this case (FSEIS, pp. 210, 211). The range of alternatives is in compliance with NEPA.

**Issue 4. Contention 3. The appellants allege the BMWP did not provide an alternative that eliminates units that have noxious weeds present on roads within units from fire management proposals in violation of NFMA and NEPA. It did not include an action alternative that includes land management standards that will prevent new weed infestations by addressing the causes of weed infestation. The failure to include preventive standards violates NFMA because the Forest Service is not ensuring the protection of soils and native plant communities. Additionally, the omission of an alternative that includes preventive measures would violate NEPA because the Forest Service failed to consider a reasonable alternative.**

**Response:** The Final SFEIS includes a map of weeds that are currently inventoried in the project area (including within the roadless area within the analysis area) (PF#4, p. 180). As discussed on Final SFEIS (p. 180), almost all of the existing weeds are along roads so including an alternative that excludes treatment units adjacent to weed patches would result in the No Action Alternative because all of the roads leading into the project have weeds (PF#4, p. 180). The No Action alternative was fully analyzed in the EIS. In addition, Alternative 6 was developed in between DEIS and FEIs partially in response to comments regarding the effects of the project on weed establishment and spread. The BMW ROD identifies noxious weed establishment and spread by disturbances associated with project activities as an issue considered in the decision to select Alternative 6 (modified) (ROD, pp. 38 and 39).

GNF Forest Plan Standard 15 (p. II-28) states, "implement an integrated weed control program to confine present infestations and prevent establishing new areas of noxious weeds." The Bozeman Ranger District has an approved integrated weed management program, consistent with this standard (Bozeman Ranger District Integrated Weed Management Plan 2004 (FSFEIS p. 182; PF, Doc. 398). Furthermore, this project includes numerous additional preventative actions which are listed in the Final SEIS (pp. 183 to 185) and include: vehicle washing; pretreatment of proposed fuel reduction areas; identifying and avoiding infested areas; retaining native vegetation; over-snow logging; skyline or helicopter logging were feasible; reusing weed-free areas for landing and skid trails; minimizing the period from the end of logging to contract closure, revegetation, and/or reforestation; providing weed awareness and education; post-project weed suppression; and using only certified weed-free seed for rehabilitation of disturbed sites.

The decision is in compliance with NFMA and NEPA.

**Issue 5. The appellants allege the Forest did not take a hard look at how climate change affects and is affected by this project, in violation of NEPA, NFMA, the Forest Plan, and APA.**

**Response:** The Forest Supervisor spoke directly to potential effects of the proposal on climate change in her Record of Decision and explains why further analysis, beyond what was already incorporated in the EIS, was not necessary (ROD, p. 44). She recognizes the important role the world's forests play "in removing atmospheric carbon that is contributing to ongoing climate change." However, she provides three articulate reasons why, in this case, further analysis is not necessary. First, this project's effects "would be localized and infinitesimal in relation to the role the world's forest play in ameliorating climate change and indistinguishable from the effects of not taking the action." Second, the proposal does not fall within any [category of] primary contributors of global greenhouse gas emissions (and distinguishes forest management activities such as those proposed here from deforestation; FEIS, p. C-9). Third, the proposal is similarly distinguishable from the "primary human activities exerting negative pressure on the [strong] carbon sink that currently exists in U.S. forests. The affected forests will remain forests, not converted to other land uses, and long-term forest services and benefits will be maintained" (ROD, pp. 44, 45). I find the Forest Supervisor's conclusions are reasoned, well supported, and in compliance with NEPA and APA.

The purpose of the proposed actions is equally well articulated (ROD, pp. 5, 6). It is based on existing conditions and trends within the project area. Selected treatments are strategically placed to reduce threats that exist today (ROD p. 8). Treatments are expected to maintain greatest effectiveness during the 10-15 years after the project is implemented (Ibid). The decision is clearly of limited scope and duration. Global climatic warming, however, has been ongoing for many decades. The conditions and trends on which the purpose of this project is based are, in part, an expression of the local climate (see similar discussions at SEIS, p. 45). I have reviewed the literature provided by the appellants and find no relevant evidence that would obviate the purpose and need for this decision. The project and analysis are in compliance with NEPA and NFMA.

**Issue 6. Wildlife – Big Game and Elk**

**Issue 6, Contention 1. The appellants allege the Gallatin National Forest is in violation of the Forest Plan Goal #7 by failing to maintain and improve habitat for elk and therefore not providing habitat for viable populations of all indigenous wildlife species and for increasing populations of big game.**

**Response:** The Gallatin Forest Plan contains a goal to provide habitat for all indigenous wildlife species including increasing populations of big game animals (Forest Plan, p. II-1). "Goal" is defined in the Gallatin FP as a concise statement that describes a desired condition to be achieved. It is normally expressed in broad general terms and it is timeless in that it has no specific date by which it is to be completed (Forest Plan, p. VI-13).

The wildlife analysis for big game identified potential benefits as well as possible negative impacts associated with habitat alteration and disturbance factors resulting from proposed

treatments (ROD, p. 35). The wildlife analysis discussed the effects to browse for elk, the increase in edge habitat promoting habitat diversity, and how the project would increase foraging habitat for big game species, including elk (PF, Doc. 4, Final SFEIS, p. 20). Montana Fish, Wildlife, and Parks were contacted for population trend information (Final SFEIS, p. 18). They indicated elk populations are stable to increasing when considered at the project and at the Forest scale (SFEIS, pp. 30, 204). Proposed treatments are designed to reduce the potential for a large scale fire event. A large scale fire event in the BMW project analysis area could easily reduce hiding and thermal cover to a much greater degree than would occur as a result of proposed fuel treatments. A large-scale fire even could easily reduce cover well below two-thirds of the analysis area, which would take approximately 20 to 40 years to regenerate to a point where it provides adequate cover for big game. This would not be a net benefit for elk or other big game in the Gallatin Range (SFEIS, p. 30). Project design features would maintain two-thirds of the hiding cover associated with discrete key habitat features such as meadows, wallows, etc. in order to meet Forest Plan standard 6.a.5 (FEIS, p. 2-22). Stream management zone mitigation (SFEIS, p. 229) would further protect moist key habitat features by leaving non-treated buffer along stream banks, where moist vegetation types are likely to occur, which are important to elk. A discussion of design features and mitigation can be found in the ROD (p. 16).

Additionally, there are large blocks of forested secure habitat available to big game adjacent to and roughly the same size as the project analysis area. Providing security areas adjacent to timber harvest areas has been recommended to reduce impacts to elk on summer range (SFEIS, p. 22). This project is in compliance with the Forest Plan.

**Issue 6, Contention 2. The appellants allege the Gallatin National Forest failed to adequately disclose the impacts of wildlife hiding cover in the project area (including cumulative impacts of past logging and road building and the cumulative loss of hiding cover) violating the forest plan mandate to maintain two-thirds of wildlife hiding cover associated with all key habitat elements. They further allege that the BMW project has no 'pesky' big game/elk effective cover standard and that the 70 percent HEI Forest Plan standard was removed with the Forest Travel Plan and replaced with nothing.**

**Response:** Forest-wide standards in the Forest Plan require that at least two-thirds of the hiding cover associated with key habitat components be maintained over time. The Gallatin Forest Plan Hiding Cover Assessment provides interpretation and guidance on compliance with the Forest Plan hiding cover standard for use in project analysis and supports methodology used (PF, Doc. 758). This method used to determine hiding cover was affirmed in a recent district court ruling for the Smith Creek project.

Currently, Approximately 91 percent of the project area is considered habitat capable of producing hiding cover and most past timber harvest units in the project area have since regenerated to a condition where they now provide hiding cover for big game (SFEIS, p. 14). Hiding cover estimates before and after the proposed treatments are provided in the big game analysis for each alternative (PF, Doc. 658). Direct, indirect, and cumulative impacts (including past logging and road building) to hiding cover, thermal cover, road densities, and security areas were analyzed in the wildlife analysis for all alternatives (SFEIS, pp. 19 to 20, 23 to 29). Project

design features would maintain two-thirds of the hiding cover associated with discrete key habitat features such as meadows, wallows, etc. (ROD, p. 16).

Field work was conducted to validate the habitat modeling used for big game habitat assessment (PF, Docs. 654, 655, 661 to 663) and the work confirmed the project meets Forest Plan Direction for big game cover (SFEIS, p. 29). A more detailed account of data collection and analysis methods for assessing hiding cover is contained in the project file (PF, Doc. 659). The selected alternative for the project is in compliance with Forest Plan direction for management of big game habitat.

**Issue 6, Contention 3. The appellants allege the Forest Service violated the Forest Plan, NEPA, NFMA and APA by not mapping all perennial and ephemeral stream, springs, bogs, potholes, wetlands, and wallows because they are 'moist areas' and did not take a 'hard look' at the project's impact on moist areas.**

**Response:** The Forest Plan contains a forest-wide standard to "Maintain at least two-thirds of the cover associated with key habitat components over time. Key habitat components include moist areas (wallows, etc.)...These areas will be mapped on a site-by-site basis during project area analysis" (Forest Plan, p. II-18l; ROD, p. 16). Key habitat components, including moist areas (wallows, etc.) were mapped using field data and remote data (PF, Docs. 661 to 663) and moist types are generally not located within proposed treatment units, see Figures 2 and 11 (FSEIS, pp. 13, 15, 141). Effects to key habitat components were analyzed in the wildlife analysis for each alternative (FSEIS, pp. 20 to 21). All action alternatives would maintain the majority of existing forest habitat types (moist subalpine fir and spruce) that tend to produce these wet sites within the project analysis area. Streamside Management Zone direction limits tree removal within a certain distance from streams and the 150-foot no cut buffer and a 100-foot no burn buffer (for Alternative 6) would help maintain hiding cover associated with wet to moist key habitat features within the project analysis area, since many of the moist types are adjacent to or associated with stream courses. In addition, where isolated, moist to wet micro sites occur within proposed treatment units, all action alternatives contain prescriptive mitigation measures to maintain at least two-thirds of the hiding cover associated within these features in treatment units (FSEIS, p. 21 and ROD, p. 16). This project is in compliance with the Forest Plan, NFMA, NEPA, and APA.

**Issue 6, Contention 4. The appellants allege the Forest Service violated the Forest Plan, NEPA, NFMA and APA by failing to adequately identify, map or disclose impacts to big game migration routes within and throughout the project area and by failing to take a 'hard look' at the project's impacts to migration routes.**

**Response:** There are no migration routes known to exist within the project analysis area and no known staging areas used by big game in the project analysis area according to Kurt Alt, former Region 3 Wildlife Biologist for Montana Fish, Wildlife and Parks (PF, Doc. 741, SFEIS, p. 14). Forest Plan standards for key habitat components also include migration routes. Key habitat components were mapped for the project analysis area to the extent that locations on the landscape are known, or can be identified with existing data (SFEIS, p. 16). Since there are no readily identifiable migration routes or staging areas in the project analysis areas (PF, Doc. 741),

there was nothing to map as a key habitat features for this project (SFEIS, p. 18). Effects to big game movement within the project area were analyzed in the direct and indirect effects section for each alternative (SFEIS, pp. 23 to 28). This project is in compliance with the Forest Plan, NEPA, NFMA and APA.

**Issue 7. Old Growth Dependant Sensitive and Management Indicator Species**

**Issue 7, Contention 1. The appellants allege the Gallatin National Forest violated NFMA by failing to maintain and improve habitat and failed to maintain viable populations for old growth species, failed to monitor habitat and population trends of old growth indicator species and failed to take a 'hard look' at the populations of indicator species in the area.**

**Response:** Management indicator species (MIS) are identified in the Forest Plan as those species groups whose habitat is most likely to be affected by Forest management activities. All MIS, including old growth MIS, were addressed individually in project analyses (FEIS, pp. 3-196, 3-200, 3-209, 3-392, and 3-400). Much of the legal case history regarding MIS has been generated in relation to NFMA regulations that are no longer in effect (i.e. the 1982 regulations that were at 36 CFR 219.19), which was cited in this issue from the appellant. NFMA itself requires the Forest Service to: "provide for diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives, and within the multiple-use objectives of a land management plan adopted pursuant to this section, provide, where appropriate, to the degree practicable, for steps to be taken to preserve the diversity of tree species similar to that existing in the region controlled by the plan" 16 U.S.C. 1604(g)(3)(B). Applicable implementing regulations requires the agency to, "consider the best available science in implementing...existing plans" (Appendix B to 36 CFR § 219.35).

The BMW SFEIS (pp. 203 to 206) contains a summary of predicted consequences to MIS. This references a forest-wide assessment of terrestrial wildlife MIS populations and habitat trends (PF, Doc. 625). Based on this information, it was determined that the BMW will provide for a diversity of plant and animal communities, consistent with NFMA direction. Under the Gallatin Forest Plan, population trends of indicator species and relationships to habitat changes are to be monitored (Forest Plan, pp. II-18 and IV-6). The expected precision and reliability for this monitoring is "moderate" and the reporting interval is 5 years. Therefore, this requirement is accomplished by observing the consequences of multiple management actions over time. The Gallatin National Forest produced the Forest Plan Monitoring Report summarizing information for the period 2004 to 2006, and with respect to MIS, indicated stable to increasing population trends for Gallatin MIS wildlife species, including Northern goshawk and pine marten, MIS for old growth (SFEIS, p. 203). Population trends and habitat at the planning level unit for old growth MIS Northern goshawk and pine marten can be found in the SFEIS (pp. 204 to 205). Additionally, these concerns for old growth MIS were address in Response to comments: Old growth associated species and viability requirements (SFEIS, pp. 249 to 250). This project is in compliance with the Forest Plan and NFMA.

**Issue 7, Contention 2. The appellants allege the Gallatin National Forest is in violation of the Forest Plan and NFMA by failing to provide detailed guidance to maintain viable populations of the listed sensitive species and not assuring that viable populations of**

**sensitive species are being maintained. They recommend considering population viability be assessed at least at the forest-wide scale (Marcot and Murphy, 1992).**

**Response:** This comment was addressed previously in the Response to Comments section of the SFEIS (p. 253). The Forest Plan standard requires the Forest to manage essential habitat to maintain sensitive species (SFEIS, p. 252). There is no indication the project contains habitat that is essential for any particular sensitive species, although the area does contain suitable habitat for sensitive species as described in the FEIS and the ROD (FEIS, Chapter 3, ROD, pp. 35 to 36). Additionally, there is no Forest Plan requirement to assure viability for sensitive species and there is no NFMA requirement to provide for adequate wildlife habitat to ensure viable populations of any or all species (SFEIS, p. 253). The current NFMA requirements are stated above in Issue 7, Contention 1. According to Forest Service Manual 2621.2 direction, "It is essential to establish population viability objectives when making decisions that would significantly reduce sensitive species numbers." Potential impacts to sensitive species were analyzed and disclosed as previously mentioned and the proposed action would not significantly reduce sensitive species numbers or otherwise negatively affect the continued existence of any sensitive species (SFEIS, p. 254). Additionally, a Regional habitat assessment for a variety of MIS, including the goshawk was conducted in 2006 and updated in 2008. This information was used in the analysis for MIS in the BMW project and can be found in the FEIS (p. 3-200). This project is in compliance with the Forest Plan, NFMA, and the Forest Service Manual.

**Issue 7, Contention 3. The appellant alleges the EIS fails to complete a 'genuine' viability analysis for sensitive and old growth indicators species which is in violation of USDA Regulation 9500-4, NFMA, and Forest Service Manual 2621.2 and 2672.1 which require conservation strategies for sensitive species for projects, biological assessments to devise these strategies, and an analysis for significance of adverse effects on the populations, habitat and on the viability of the species as a whole. They further allege the Forest Service failed to disclose the cumulative effects of habitat fragmentation and reduction to logging, road building, fire suppression and other management activities in regards to their effects on population levels and viability.**

**Response:** This contention was adequately addressed previously in the Response to Comments section of the SFEIS and the current NFMA, Forest Plan, and Forest Service Manual direction was followed (SFEIS, pp. 253 to 255). Forest Plan, NFMA, and Forest Service Manual direction for MIS and sensitive species are previously explained in response to Issue 7, Contentions 1 and 2. The BMW project and analysis comply with this direction. Direct, indirect, and cumulative effects to MIS and sensitive species are detailed in Chapter 3 of the FEIS and effects are summarized in the ROD (pp. 35 to 36). The analysis did not find any significant impacts to these species. The analysis is in compliance with NEPA, NFMA, the Forest Plan, and Forest Service Manual.

**Issue 7, Contention 4. The appellants allege the Forest Service was in violation of the Forest Plan, NEPA and NFMA by not documenting presence of wolverine, pine marten, or grizzly bear and using habitat as a proxy assuming that the old growth habitat will ensure viability of all species. They further allege that the Forest Service was in error using the old growth**

**standards to meet the Forest Plan requirements for MIS monitoring and ensuring species viability.**

**Response:** This contention was appropriately addressed previously in the Response to Comments section of the SFEIS and the current NFMA, Forest Plan, and Forest Service Manual direction was followed (SFEIS, p. 255). The SFEIS made no indication that wolverine, grizzly bear, or pine marten were not found. While the FEIS acknowledged infrequent use by these species in the project area due to limited habitat suitability, their presence has been documented within the project area or in suitable habitat adjacent to the project area, and within the cumulative effects analysis areas identified for these species (FEIS, pp. 3-356, 3-367, 3-390, 3-391 and 3-400). Neither the Forest Plan nor the NFMA contain requirements that the Forest Service must ensure viable populations of MIS. The NFMA requirements are detailed above in response to Issue 7 Contentions 1 and 2. The analysis shows how the project complies with the Forest Plan. Only pine marten and grizzly bear are identified as MIS in the Forest Plan. Additionally, the Forest did not rely upon using the old growth standard to meet Forest Plan requirements for MIS monitoring in the analysis for pine marten or goshawk, old growth MIS (FEIS, pp. 3-193, 3-389). The BMW SFEIS (SFEIS, pp. 203 to 206) contains a summary of predicted consequences to MIS, describing how the project meets the Forest Plan Requirement for MIS. This references a forest-wide assessment of terrestrial wildlife MIS populations and habitat trends (PF, Doc. 625). This project is in compliance with the Forest Plan, NEPA, and NFMA.

**Issue 8. Old Growth**

**Issue 8, Contention 1. The appellants allege the Forest Service in the FEIS did not analyze old growth, the estimate of old growth in timber compartments was overestimated by using data from unreliable sources not following the Northern Region, Green et al definition and procedures, and failed to comply with the 10 percent old growth standard, in violation of the Forest Plan.**

**Response:** The Forest Plan directs under Forest-wide Standards to 'strive to develop 10% old growth for each timber compartment containing suitable timber" (Forest Plan, p. II-20). The definition of old growth is broad as defined in the glossary of the Forest Plan (PF, Doc. 18, Forest Plan, pp. VI-23 to VI-24), which would result in even higher levels of old growth than estimated using Green et. al. The methodology used for calculating old growth is based on 'forested acres' (PF, Doc. 530). The Gallatin Forest Plan is silent on 'methodology' of how to calculate old growth except to say that it will be considered by timber compartment. Since there are no trees in non-forested areas, to include those acres is misrepresentative. In the BMW Project area, calculated either way, there is old growth well in excess of 10 percent (FEIS, pp. 1-5 to 1-7). The information shows old growth was calculated separately from other forest types (FEIS, p. 1-6 to 1-7, Tables 1 and 2). The information also shows how old growth was determined using Green et al. for broad level analyses with FIA data and finer level analyses using stand exam data. At the time of the Forest Plan completion there was no Green et al. document and no specific direction as to what is old growth forest. However, in 1992, Region 1 developed old growth standards in the paper entitled "Old Growth Types of the Northern Region". The Gallatin NF has been using this Regional Green et al. direction ever since as

explained in the Forested Vegetation section of the FEIS (FEIS, p. 3-211). Direct, indirect and cumulative effects to old growth were analyzed for each alternative (FEIS, pp. 3-211 to 3-215, 3-226 to 3-227, 3-232 to 3-233, 3-238 to 3-239, 3-251, 3-254 to 3-258). Cumulative effects to forested vegetation, including old growth, were further analyzed (PF, Docs. 539, 540). Additionally, this issue was addressed in the response to comments section of the SFEIS and FEIS (SFEIS, pp. 246 to 249 and FEIS, pp. C-20 to C-22).

**Issue 9. Clean Water Act**

**Issue 9, Contention 1. The appellants allege the BMWP violates the Clean Water Act and fails to comply with Montana water law. They also contend that the Final SFEIS states that there will not be measureable increases in nutrients in nutrient compromised Hyalite Creek but it asserts no background for this assessment nor delineates why or how the Forest Service came to this conclusion in violation of NEPA. They allege that an increase in nutrients on a nutrient impaired stream, before a TMDL assessment has been completed, is a violation of the Clean Water Act. They also allege the addition of sediment to creeks that are impaired due to sediment before a TMDL assessment has been completed is a violation of the CWA.**

**Response:** The background, methodology, and nutrient analysis is clearly presented in the water analysis (Final SFEIS, pp. 135, 138, 158 to 160, 165) and supported by the record. The Montana DEQ Water Quality Bureau staff visited the project area, discussed the project extensively, and confirmed in writing that the project complies with the Clean Water Act.

The SFEIS explains the rationale for the disclosure that the BMW project would not be expected to have measurable nutrient effects. The decision further mitigates potential nutrient impacts. The TMDL listings include detailed water quality information in the "assessment record" via the DEQ website cited in the SFEIS. The SFEIS (p.137) contains extensive additional information and references on the Hyalite Reservoir nutrient releases.

The DEQ assessment has discounted the "rangeland grazing, silviculture harvesting, and unpaved roads and trails" to be the cause of the excess nutrients, and considers the nutrient source to be Hyalite reservoir. Since the reasonable operation of dams in existence has gone on since 7/1/1991, reservoir fluctuations are considered "natural" sources. The Montana DEQ, (explained in the Final SFEIS, p. 138), has indicated that the upper segment (MT41H003-132) will likely be removed from the 303(d) list and no TMDL will be required. More recent discussions with the Montana DEQ (1/26/12) confirm that the section of Hyalite Creek between Hyalite dam and the City of Bozeman water intake diversion will be removed from the 303(d) list in the Upper Gallatin TMDL list. This is tentatively scheduled for release in March 2012.

The project is in compliance with the Clean Water Act and Montana water laws.

**Issue 9, Contention 2. The appellants allege the addition of sediment to WQLS steams from logging activities is a violation of the Clean Water Act (Sierra Club, et al v. Austin, et. al. 2003). The BMW project will interfere with the attainment of the beneficial use of maintaining healthy fishable populations of native salmonids. The impact of the intense**

**project is in compliance with the applicable Montana Law but does not address compliance with Forest Travel Plan standards.**

**Response:** The Gallatin sediment standards were revised during the Travel Plan process (in cooperation with the Montana DEQ) to be much more restrictive than previous standards and are based on sediment modeling and calibrated with actual GNF water quality data (sediment) and sediment core (spawning substrate fines) (FSFEIS, p. 146; PR, Doc. 11, Travel Plan, pp. 1-12, 13).

The Final SFEIS and ROD document that the BMW project in Hyalite and Bozeman Creek (both 6th level HUC's) are considerably below and well within compliance with the 30 percent over natural standard (FSFEIS, pp. 37, 41 to 42, 49, 52, 54, 57, 59, 62 to 63, 67, 151 to 170, 177, 178). A 7 level HUC sediment analysis was not appropriate in these watersheds. The only HUC 7 modeling was done on Leverich Creek, which for Alternative 2 and 3 exceed the 30 percent standard. The Forest concluded that Alternative 6 with three modifications would incorporate sufficient mitigations to reduce Leverich sediment levels. The selected Alternative 6 resulted in a project that is well within the sediment standards.

The FEIS and the selection of Alternative 6, with 3 modifications in the ROD by the responsible official appropriately considered sediment analysis and the 30% standard. The project and analysis are in compliance with CWA, NEPA, and NFMA.

**Issue 9, Contention 4. The appellants allege the USFS will inappropriately use the Best Management Practices (BMPs) to mitigate impacts of erosion, sediment overloads. They allege increased nutrients will not comply with the Clean Water Act and state of Montana regulations and that the FEIS does not disclose the degree to which the FS relies on these BMPs. They further allege the project as described does not adequately account for or mitigate watershed damage resulting from use of haul roads, especially in drainages already suffering from cumulative impacts. This inadequacy is especially troubling in watersheds where streams may be listed on the 303d list as impaired, from whatever cause.**

**The appellants cite several references to support their contention of inadequate BMPs, and conclude that the effectiveness of BMPs is in violation of the Forest Plan. AWR contends monitoring is accomplished every 5 years so they have no faith that the Forest Service will effectively monitor BMPs to prevent detrimental impacts to the environment thereby violating the Forest Plan.**

**Response:** Extensive project level monitoring has confirmed the effectiveness of BMPs (SFEIS, pp. 155 to 158). The project complies with BMP direction. Montana Department of Environmental Quality confirmed inclusion of "reasonable" BMPs and compliance with the Clean Water Act (PF, Doc. 65). The BMPs used in the BMW project were based on the Montana Forestry BMP's, which form the basis of the Montana BMP audits, augmented by more stringent Gallatin NF SMZ guidelines (SFEIS, pp. B12 to B14 and B242 to B243). The Forest's "enhanced" SMZ BMPs were developed in cooperation with Trout Unlimited to provide additional projection in addition to the Montana SMZ guidelines (ROD, pp. 76 to78).

**project is in compliance with the applicable Montana Law but does not address compliance with Forest Travel Plan standards.**

**Response:** The Gallatin sediment standards were revised during the Travel Plan process (in cooperation with the Montana DEQ) to be much more restrictive than previous standards and are based on sediment modeling and calibrated with actual GNF water quality data (sediment) and sediment core (spawning substrate fines) (FSFEIS, p. 146; PR, Doc. 11, Travel Plan, pp. 1-12, 13).

The Final SFEIS and ROD document that the BMW project in Hyalite and Bozeman Creek (both 6th level HUC's) are considerably below and well within compliance with the 30 percent over natural standard (FSFEIS, pp. 37, 41 to 42, 49, 52, 54, 57, 59, 62 to 63, 67, 151 to 170, 177, 178). A 7 level HUC sediment analysis was not appropriate in these watersheds. The only HUC 7 modeling was done on Leverich Creek, which for Alternative 2 and 3 exceed the 30 percent standard. The Forest concluded that Alternative 6 with three modifications would incorporate sufficient mitigations to reduce Leverich sediment levels. The selected Alternative 6 resulted in a project that is well within the sediment standards.

The FEIS and the selection of Alternative 6, with 3 modifications in the ROD by the responsible official appropriately considered sediment analysis and the 30% standard. The project and analysis are in compliance with CWA, NEPA, and NFMA.

**Issue 9, Contention 4. The appellants allege the USFS will inappropriately use the Best Management Practices (BMPs) to mitigate impacts of erosion, sediment overloads. They allege increased nutrients will not comply with the Clean Water Act and state of Montana regulations and that the FEIS does not disclose the degree to which the FS relies on these BMPs. They further allege the project as described does not adequately account for or mitigate watershed damage resulting from use of haul roads, especially in drainages already suffering from cumulative impacts. This inadequacy is especially troubling in watersheds where streams may be listed on the 303d list as impaired, from whatever cause.**

**The appellants cite several references to support their contention of inadequate BMPs, and conclude that the effectiveness of BMPs is in violation of the Forest Plan. AWR contends monitoring is accomplished every 5 years so they have no faith that the Forest Service will effectively monitor BMPs to prevent detrimental impacts to the environment thereby violating the Forest Plan.**

**Response:** Extensive project level monitoring has confirmed the effectiveness of BMPs (SFEIS, pp. 155 to 158). The project complies with BMP direction. Montana Department of Environmental Quality confirmed inclusion of "reasonable" BMPs and compliance with the Clean Water Act (PF, Doc. 65). The BMPs used in the BMW project were based on the Montana Forestry BMP's, which form the basis of the Montana BMP audits, augmented by more stringent Gallatin NF SMZ guidelines (SFEIS, pp. B12 to B14 and B242 to B243). The Forest's "enhanced" SMZ BMPs were developed in cooperation with Trout Unlimited to provide additional projection in addition to the Montana SMZ guidelines (ROD, pp. 76 to78).

The GNF has produced several Forest Plan monitoring reports since the early 1990s (PF, Docs. 571, 573, 578, 579, 585, 604, 605), which included detailed descriptions of BMP monitoring reports, results, and appropriate BMP adaptations in response to the Forest Plan monitoring requirements (Forest Plan, pp. IV-4 and IV-5) . The Appendix B BMPs are based on the Montana Forestry BMP's which have been extensively tested and monitored every 2 years in Montana starting in 1988. The Final SFEIS was updated with several other Gallatin NF BMP reviews which document BMP effectiveness (ROD p. 15, 17, 21, 32, 33, 42, 67-78).

The Forest Supervisor appropriately used BMPs and the project is consistent with DEQ requirements to fulfill CWA regulations. BMPs have been proven effective as shown by the reference material and citations and are an appropriate measure to protect the project area from undue sedimentation.

**Issue 9. Contention 5. The appellants allege the USFS failed to analyze the impacts to Cottonwood Creek and Hogman Creek, but admit the project will impact them. They state the Forest Service did not assess Cottonwood Creek because the impact is going to be low. The efforts to assess Cottonwood and other unassisted streams are legally insufficient.**

**Response:** A discussion concerning Hodgeman and Cottonwood drainages is found in the Final SFEIS (pp. 44 to 45). The explanation regarding Hodgeman and Cottonwood Creeks appears again in the SFEIS (p. 151). Units in Hodgeman Canyon are located above several irrigation ditches which do not discharge into Hyalite or Bozeman Creeks, so no sediment or overland flow would reach a stream. Parts of some ridgetop units high on the hydrologic divide lap over into Cottonwood Creek drainage and the hydrologist states that the possibility of direct, indirect or cumulative effects to sediment yield is unlikely, presumably due to the long distance to any running water (see ROD, Figure 2, p.10).

The Forest Supervisor made a rational determination that no sediment from the BMWP would reach the Cottonwood Creek and Hodgeman Creek drainages.

**Issue 9, Contention 6. The appellants allege the FEIS states "several of the proposed temporary roads would cross the headwater drainages [in Leverich Canyon] which may or may not be wet." This not a "hard look" at the impacts of the project and is in violation of the CWA as it is the construction of a road in a wetland area. They further assert that temporary road B-50 will put sediment into Leverich Creek. This does not protect the MIS Westslope cutthroat trout (WCT) population there and is in violation of the CWA.**

**Response:** The appellants'' description of the situation is in accurate. The decision plans for 0.3 miles of temporary road in the Leverich Creek drainage. The temporary road is located along the ridge top between Hodgman and Leverich drainages. The temporary road (0.3 miles long) that is proposed to be constructed is located along a dry ridgeline between Hodgeman Canyon and Leverich Creek. A slash filter windrow is required along this new segment of temporary road to eliminate potential sediment delivery.

Based on the record I find that the responsible official has taken the requisite hard look at sediment issues and selected Alternative 6 with modification in order to reduce such impacts

well below the Forest threshold for sediment. Although the sediment standards for the Gallatin National Forest for Bozeman and Hyalite Creeks are 30 percent over natural, alternative 6 was constrained to keep sediment levels in Hyalite Creek at a maximum at 5 percent over natural and Bozeman Creek at 5 percent over natural. This also has the potential to reduce turbidity impacts and operational problems at the Bozeman Water Treatment plant.

**Issue 9, Contention 7. The appellants allege there is reference in the FEIS and in scientific assessments relied on in the creation of the FEIS to the possible impoundment of water in the Bozeman Creek drainage. This impoundment therefore is clearly foreseeable and must be thoroughly considered in evaluating the cumulative effects of the Project on water quality and fisheries in the FEIS. The failure to do so is a violation of NEPA.**

**Response:** The SFEIS (pp. 8 and 9) includes a discussion regarding changes between Final and Supplemental EIS as related to the Sourdough Dam proposal. The SFEIS (p. 153) states "The City of Bozeman is conducting feasibility studies for a Bozeman Creek impoundment for municipal water storage above the BMW project area. The dam is not currently reasonably foreseeable and, if found to be feasible, would not be constructed until several years after the 2016 water resource cumulative effects BMW timeframe. If a proposal was presented to the Forest Service, full environmental analysis would be required."

I concur with the responsible official that because the Forest Service has not received any notice or application for a water impoundment in the Bozeman Creek drainage, the Forest is not a violation of NEPA as the appellants suggest. In the event a proposal is presented by the City, a full environmental analysis would be conducted in which potential cumulative effects would be considered. The BMWP cumulative analysis is in compliance with NEPA.

**Issue 9, Contention 8. The appellants allege the Forest Service violated NEPA's "hard look" requirement by failing to disclose the amount of sedimentation that will result from more road miles and increased road use during and after project implementation. They state cumulative effects on water quality and wild trout were not adequately analyzed. They believe the agency violated NEPA by failing to address cumulative impacts of reasonably foreseeable projects on water quality.**

**Response:** Sedimentation from roads was considered, modeled, and disclosed in the water quality section of the SFEIS (pp. 134 to 178). The discussion (p.149) specifically addresses the model WEPP:Road and that it "was used to estimate road sediment changes from increased log truck use." Direct and indirect effects to water quality, particularly sedimentation, for Alternative 6 are included in the SFEIS (pp. 169 to 174), including cumulative effects (pp. 174 to 175). The hydrologist and fisheries biologist used a cumulative effects checklist (PF, Doc. 243), and a supplemental cumulative effects checklist (PF, Doc. 244). The cumulative effects analysis for fisheries is provided in the SFEIS (pp. 43 to 46, 48 to 49, 52, 54 to 56, 59 to 60, and 62). The ROD includes a discussion (p. 3), of new proposed projects between March 2010 and November 2011, and that the SFEIS considered these additional actions.

I find the SFEIS provided analysis and disclosure of cumulative effects on water quality and fisheries, giving the hard look necessary at all existing and reasonably foreseeable actions for a reasoned decision and informing the public. The analysis is in compliance with NEPA.

**Issue 9. Contention 9. The appellants allege the project does not adequately account for or mitigate watershed damage resulting from use of haul roads, especially in drainages already suffering from cumulative impacts. They contend this inadequacy is especially troubling in watersheds where streams may be listed on the 303d list as impaired, from whatever cause.**

**AWR further asserts that even though the Forest Service recognized that high road densities have led to cutthroat habitat degradation, they contend the Forest Service failed to effectively assess the amount of sedimentation that could be expected from road implementation and repeatedly driving log trucks down those roads over the four to five years of project implementation.**

**Response:** I have discussed Water Quality standard compliance, and 303(d) and TMDLs above. The use of haul roads and associated sediment is described in the Final SFEIS in the sediment modeling methodology (pp. 147 to 151) and displayed for each alternative. The sediment modeling used road mileage and amount of use (traveled, closed etc.) for appropriate sediment coefficients (SFEIS, pp. 152 to 174). The BMW has very limited dirt road haul distance as most of the haul route is on the paved Hyalite Canyon road. The fisheries analysis is based on the water quality sediment modeling, so both the water and fish analysis take increased road use into account in their analysis.

I find the responsible official has taken into account haul road impacts and sediment potential, accounted for and disclosed limitations of models used, and has selected an alternative that will stay far below the sediment levels allowed by the Gallatin Forest Plan. The project is in compliance with the Clean Water Act.

**Issue 9, Contention 10. The appellants allege the USFS attempts to outline the wetlands in the area but they do not identify all the wetlands in the project area. And they do not effectively avoid the dredge and fill of these wetlands with project implementation. Machines in the area and sediment runoff from prescribed fires and other treatments will negatively impact the wetlands in the area.**

**Response:** Mapping of moist areas as required by the Forest Plan (p. II-18) because it is a big game standard. The Final SFEIS added the wetland map of the BMW project area (Final SFEIS p. 141) based on the Montana Natural Heritage Program and National Wetland Inventory data. Wetland disturbance will be avoided in BMW project implementation. The record is replete with analysis, discussion, and disclosure relative to this contention SFEIS pp. 11, 15, 16, 18, 20, 29, 134, 140, 141, 147 to 151, 232 to 240; ROD, pp. 15, 20, 50, 59, 70, 73, 75). The Forest took the requisite hard look and is in compliance with Forest Plan, NFMA, and APA.

**Issue 9, Contention 11. The appellants allege the Forest's approval of the project violates the APA and NEPA because the agency failed to analyze point source discharges in the**

**project area. A NPDES permit is needed because there are culvert and ditch point sources in the project area. The public must be engaged and notified of the process.**

**Response:** The Final SFEIS includes a thorough analysis of potential water quality effects, including those related to sediment (Final SFEIS, pp. 134 to 178). The storm flow discharge issue was investigated in September 2010 (see Water Resources Effects Report referenced) and the actual potential road sediment discharge points identified. Potential road drainage effects are included in the sediment analysis (Final SFEIS, pp. 148 to 170). The potential water quality impacts of sediment reaching streams do not change, and is therefore not dependant on the regulatory classification of the sediment source as point or nonpoint.

Application of BMPs and compliance with the Clean Water Act is also discussed throughout the Final SFEIS. Best management practices continue to be an effective means of preventing sediment from reaching streams which are applied in the BMW project regardless of the potential regulatory classification of the sediment source. The BMPs for the BMW project are described in the FSEIS (pp. 175 to 177 and 229 to 243). As stated in the ROD, Final SFEIS, and Water Resources Effects Report, all permits necessary to comply with the CWA will be obtained prior to implementation.

**Issue 10. Fisheries**

**Issue 10, Contention 1a. The appellants allege sediment will increase in project area streams and affect spawning habitat for westslope cutthroat trout (WCT) and fish MIS.**

**Response:** The "percent fine sediment has been projected to decrease" in Leverich and Hyalite Creeks with the implementation of Alternative 6. Only Leverich Creek contains WCT, where an improvement in egg-to-fry survival can be expected (SFEIS, p. 62). The maximum projected change in fine sediment for Bozeman Creek is 0.3 percent, considerably less than the 30 percent standard. The fisheries analysis in the SFEIS states "Alternative 6 coupled with the recent road decommissioning within the Hyalite Creek analysis area would have beneficial effects on Management Indicator Species" (ibid). Sediment predictions are based on modeling by the Forest Hydrologist (SFEIS, pp. 44, 147 to149, 170, 171). Further, the Selected Alternative in the Record of Decision does not include a prescribed burning unit due to its proximity to Hyalite Creek, to avoid the remote possibility of nutrient delivery to the water course (ROD, p. 7). The fisheries issue, riparian species and aquatic mitigation, Forest Plan consistency, and riparian treatment are addressed in the ROD (pp. 12, 27 to 28, 53, 76 to 78).

The ROD, SFEIS, and record all support the finding that wild trout, water quality, fish habitat and stream health are protected with the implementation of this project.

**Issue 10, Contention 1b. The appellant contends the fisheries analysis relies on outdated, data, guessing, and ineffective computer models. They also assert that the Forest Service failed to follow its Forest Plan by failing to monitor BMP effectiveness and MIS, in violation of NFMA. They opine that the project will degrade wild trout habitat and potential WCT trout habitat.**

**Response:** When determining current westslope cutthroat trout distribution, old data is considered good data (SFEIS, p. 67). It can indicate if the present distribution represents a change from the historical situation. The methodology for analysis for fisheries is discussed in the SFEIS (pp. 43 to 44), describing that equations in the model use measured instream sediment concentrations. The hydrologist discloses methodology for analysis in the SFEIS (pp. 147 to 149). Limitations are disclosed, but are not identified by the fisheries biologist or hydrologist as "ineffective', nor does the document represent any guessing done by these resource specialists.

Forest Plan monitoring compares actual results to those projected in the Plan. Monitoring provides information to the decision-maker and public on progress and results of implementation of the Forest Plan. This monitoring is at the Forest program level, not project level. The Gallatin NF MIS Monitoring Report for wild trout as required by the GNF Forest Plan entitled, "Distribution and Status of GNF Management Indicator Species" is discussed in the SFEIS (p. 31), and Project File (Doc. 253).

I find that monitoring was conducted in compliance with NFMA and the Gallatin Forest Plan, and that the fisheries and water quality analyses constitute the requisite hard look to assess effects to fisheries habitat.

**Issue 10, Contention 2. The appellants allege the Forest Service is violating NEPA, NFMA, the Forest Plan, the CWA, Montana water quality, the APA, and the Trout Unlimited Settlement Agreement, by commercial logging in riparian areas.**

**Response:** The "Riparian Treatment Strategies" (FSEIS, pp. 76 to 78) were developed in consultation with the Madison-Gallatin Trout Unlimited (PF, Doc. 266). The settlement agreement states "Timber harvest activities designed to meet timber management objectives will not be scheduled in riparian areas" (PF, Doc. 224). At the time the settlement agreement was signed in 1990, commercial logging was not being utilized for the purpose of implementing fuels reduction. A letter from MGTU from 2007 recognizes that "limited and carefully designed entry into riparian areas may be necessary for meeting project objectives to protect public and firefighter safety" (PF, Doc. 250).

The Madison-Gallatin Chapter of Trout Unlimited (MGTU) understands the purpose and need for treating riparian areas and has been cooperating with the GNF in developing the "Riparian Treatment Strategies" which are displayed FSEIS (pp. 241 to 243), and discussed in the ROD (pp. 76 to 78). MGTU has agreed to these strategies included within the FSEIS to insure riparian function is maintained. MGTU's agreement in this case is moot, because there will be no riparian harvest with this project. Fish-bearing streams have a 100-foot no-cut buffer for both helicopter and ground-based logging. The statement "No riparian timber harvest, landing, and/or major stream crossings would occur under Alternative ..." appears at least five times in SFEIS (pp. 50, 53, 55, 57, and 60). The ROD (p. 55), states "No riparian timber harvest is included in my decision." The project is not in conflict with the Madison-Gallatin Trout Unlimited Settlement Agreement, nor does it violate any law or regulation.

**Issue 10, Contention 3a. The appellants allege roads are going to increase sediment into Hyalite Creek, impairing an already impaired stream and does not protect WCT habitat there.**

**Response:** The SFEIS (p. 136) states, the segments of Hyalite Creek that are part of the Montana 303(d) database are listed due to chlorophyll-a, total phosphorus, and total nitrogen. Not sediment. Expected sediment levels from the project are well below the 30 percent standards for sediment over natural. As an aside, the WCT will not re-colonize Hyalite Creek as long as Eastern brook trout or rainbow trout occupy the stream (SFEIS, p. 48). The WCT in tributaries to Hyalite Creek are upstream of any project related impacts (SFEIS, p. 38). The SFEIS (p. 62) discusses the projected improvement in spawning habitat in Leverich Creek (where there is a WCT population), resulting from all projects including mitigation measures.

The ROD and Final SFEIS accurately state that Hyalite Creek currently meets Montana A-1 Classification standards (ROD, pp. 2, 7, 19 to 21, 26 to 27, 59 to 60, 64; and SFEIS, pp. 59, 177 to 178). The TMDL listings include detailed water quality information in the "assessment record" from the DEQ website cited in the SFEIS. None of the streams in the BMP project area, including Bozeman Creek or Hyalite Creek, are 303(d) listed for sediment (FSEIS, pp. 136, 138, 142). The Montana DEQ TMDL listing information and Montana Code for TMDL listed streams and CWA compliance is included in the SFEIS (pp.136 to142, 145, 178, 179). The definition of "naturally occurring" (FSEIS, p. 145) allows some sediment levels above natural providing "all reasonable land, soil, and water conservation practices have been applied" per ARM 16.20.603. (11).

The BMW BMPs use standard or, in many cases, more stringent BMPs than Montana Forestry BMPs or Montana SMZ rules and certainly meet the definition of "reasonable". The Montana Code Annotated – 2007 75-5-703 section (10)(c) additionally specifies that "Pending completion of a TMDL on a water body listed pursuant to 75-5-303 new or expanded non-point source activities affecting a listed water-body may commence and continue if those activities are conducted in accordance with reasonable land, soil, and water conservation practices." This provision allows the small sediment increases associated with the BMW project since "reasonable" BMPs are being planned and required. The Montana DEQ 12/10 letter specifically endorses the BMW BMPs as Clean Water Act (CWA) compliant (PF, Doc. 65). The Decision is in compliance with GNF sediment standards and Montana water quality standards.

**Issue 10, Contention 3b. The appellants allege the effects on WCT in the Hyalite Creek drainage were not assessed.**

**Response:** The FSEIS (p. 38) states, "Westslope cutthroat trout do inhabit two tributaries to Hyalite Creek just below Middle Creek Dam: Lick Creek and Wildhorse Creek. The Lick Creek population is significantly hybridized (> 10%) while the Wild Horse Creek population is genetically pure. Both these populations are located above partial or completed barriers upstream of any proposed treatment units and project related impacts." Water flows downhill, therefore any impact to any stream from the project will not affect any WCT populations upstream and isolated by natural barriers. The Biological Evaluation (pp. 67 to 68) includes further discussion

of the location of the Wildhorse Creek population of westslope cutthroat trout relative to proposed treatment units in the Hyalite Creek drainage. The Forest's analysis was appropriate.

**Issue 10, Contention 3c. The appellants allege there is no evaluation or assessment demonstrating the impacts of the mitigation projects to offset impact of sediment to the Westslope cutthroat trout (WCT) population done on Leverich Creek and nothing demonstrating that they will actually offset damages to WCT and their habitat.**

**Response:** FS Trail # 435, an old logging road, and a user built trail in the bottom of Leverich Creek were contributing sediment to Leverich Creek. Even though these trails and roads were contributing sediment, the sediment level in Leverich Creek at the Forest boundary met GNF Travel Plan sediment objective for Category A streams. These sediment sources have been remedied. Monitoring of a re-contoured road segment in Hyalite Creek is described in the SFEIS (p. 139). Techniques used are "designed to stop road erosion and sediment, and restore slope hydraulics for both ground water and surface water interception. The re-contoured segments are seeded and slashed with removed culvert areas heavily mulched" (SFEIS, p.139). The decommissioning eliminated 19 miles of roads in Hyalite Creek as erosion or sediment sources. Monitoring of the Leverich Creek trail and road rehabilitation work is documented (SFEIS, p. 143). The restoration activities to be used in the BMWP are not experimental or untried, and are elements of the sediment models (SFEIS, p. 147).

**Issue 10, Contention 3d. The appellants allege the Forest violated NFMA when it violated its Forest Plan by authorizing a project that will continue to degrade habitat for the "small and isolated" population of sensitive WCT in the project area. Sediment input to Leverich Creek does not protect the MIS Westslope cutthroat trout (WCT) population there and is in violation of the CWA.**

**Response:** The Biological Evaluation (SFESI, pp. 67 to 68) states, "Alternative 6 would raise sediment delivery 1.3% over natural above the existing 4.4%. This equates to a projected 0.4% reduction in egg-to-fry survival. Taking into account all the road and trail decommissioning that have already occurred within the drainage, sediment delivery rates and sediment levels (percent fines < 6.35 mm) would be less during and immediately after the implementation of Alternative 6 as compared to when this population was first discovered in 2006. When factoring in all these completed activities, there would be a net reduction by 1.0 percent in sediment levels in Leverich Creek in 2015.

Additional benefits would be realized when the Leverich Canyon Road is improved reducing sediment delivery, the proposed fish migration barrier is constructed, and nonnative eastern brook trout are removed. Overall, the Leverich Creek population of westslope cutthroat trout would be in much better shape in 2015 as compared to 2006 when it was first discovered." Based on an incremental increase in the short-term and decreasing levels of sediment by 2015, the fisheries biologist determined there would be no impact to WCT (SFEIS, p. 68). The decision is in compliance with NFMA and CWA.

**Issue 10, Contention 3e. The appellant alleges the Forest Service failed to discuss why Hyalite Creek and Bozeman Creek do not support viable westslope cutthroat populations.**

**Response:** The appellant is mistaken. The SFEIS (p. 34) discloses that Bozeman Creek is inhabited by rainbow trout and brook trout. Rainbow trout dominate the fishery in Hyalite Creek (SFEIS, p. 37). There is a discussion (SFEIS, pp. 40 and 47) explaining why westslope cutthroat trout are no longer present in portions of the Bozeman and Hyalite creek drainages. Westslope cutthroat trout are easily hybridized and/or out competed in streams with brook and/or rainbow trout. The WCT will not re-colonize Hyalite Creek or Bozeman Creek as long as Eastern brook trout or rainbow trout occupy the streams (SFEIS, p.48).

**Issue 10, Contention 4. The appellants allege the MOU and Conservation Agreement for Westslope Cutthroat Trout states an objective of maintaining, securing, or enhancing populations of cutthroat trout. This project fails to accomplish this.**

**Response:** The SFEIS (p. 32) provides the indicators to evaluate effects to insure the project meets the intent of Memorandum of Understanding and Conservation Agreement for Westslope Cutthroat Trout (MOUCA). The SFEIS (pp. 62 to 63) explains why the project meets MOUCA. The ROD (pp. 27 to 28) summarizes how fisheries were considered in the decision. The Biological Evaluation for WCT (SFEIS, pp. 67 to 68), determined there would be no impact to the species. The project maintains and may enhance WCT populations.

**Issue 10, Contention 5. The appellants allege the current sediment of Leverich Creek is 51.4 percent over double what is "good" and the project will add more.**

**Response:** It appears the appellants totally misquoted the FSEIS (p. 61) regarding sediment levels in Leverich Creek. The appellants stated that the current sediment of the creek is 51.4 percent. This estimate, 51.4 percent, is the expected egg-to-fry survival under the current sediment level of 22.9 percent, not the current sediment level. The current sediment level of 22.9 percent is within the Forest Plan standard for Category A streams.

**Issue 10, Contention 6. The appellants allege the FEIS fails to discuss how prescribed burns will affect water temperatures during the process, possibly killing off populations of MIS fish species and WCT in the project area.**

**Response:** The SFEIS (p. 66) includes a discussion regarding MA 7 water temperature compliance. The SFEIS (p. 63) reveals the consistency of Alternative 6 with all applicable laws, regulations and Forest Plan direction regarding aquatic habitat. There is no riparian harvest, and the ROD (pp. 7, 12, and15) describes that no prescribed fires would be ignited within 100 feet of perennial streams. The response to the comment received on this topic was printed in the FEIS (Appendix C, p. 24). Riparian Treatment Strategies for the BMW Project are repeated in the ROD (pp. 76 to 78). Prescribed burns are ignited in the spring and fall when burning conditions are much less volatile (FEIS, p. 16). Prescribed fires will not alter stream temperatures (SFEIS, p. 32).

**Issue 11. Appellants allege the Forest failed to take a hard look at its plan to conduct commercial logging to reduce the risk and intensity of wildfire.**

**Response:** These contentions are largely a rehash and extension of appellants' Issue 3. Please refer to my evaluation and conclusions relative to Issue 3 above.

**Issue 12. Roadless**

**Issue 12, Contention 1. Appellants allege the BMWP violates the 2001 roadless rule for the following reasons: 1) the project does not propose to harvest generally small diameter trees; 2) the project does not meet the exception for logging in a roadless area because there is no evidence that the IRA to be thinned has uncharacteristic fuel conditions outside the natural variability; 3) the project does not meet the exception for logging in a roadless area because there are no details as to what characteristic of ecosystem structure will be restored; and 4) the project does not demonstrate compliance with the forest plan hiding cover requirements.**

**Response:** The 2001 Roadless Rule (36 CFR 294 Subpart B) prohibits timber, cutting, sale or removal in Inventoried Roadless Areas except in certain circumstances. The following exception applies to BMW (36 CFR 294.13(b)(1)(ii)):

> The cutting, sale, or removal of generally small diameter timber is needed for one of the following purposes and will maintain or improve one or more of the roadless area characteristics as defined in § 294.11.
>
> > (ii) To maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period;

Based on my review of the record I find the project meets the Roadless Rule exception to "generally harvest small diameter trees" because the analysis considered appropriate ecological and vegetative conditions in determining what tree to harvest. The preamble for the 2001 Rule (66 FR 3257) states "Because of the great variation in stand characteristics between vegetation types in different areas, a description of what constitutes 'generally small diameter timber' is not specifically included in this rule. Such determinations are best made through project specific or land and resource management plan NEPA analyses, as guided by ecological considerations such as those described below." Ecological considerations include potential future development of the stand, and the characteristics and interrelationships of plant and animal communities associated with the site and the overall landscape.

Units 7A, 9, and 10 will be commercially thinned. These units are located in the Gallatin Fringe Inventoried Roadless Area and are located adjacent to private land. In order to reduce the potential effects to Bozeman Creek and City of Bozeman Water Facility from a severe wildfire thinning of small diameter trees (less than 7 inch DBH) will be conducted. However, as noted in the analysis understory thinning alone will not meet the objective; therefore thinning will also occur in larger trees (10 to 12 inch diameter) so that the distance between crowns is about 13 feet. This thinning will reduce the probability of crown fire spreading from crown to crown and reduce the likelihood of Douglas-fir beetle or mountain pine beetle killing many of the larger trees (FEIS, Appendix C-16). Larger trees will be retained, as well some of the smaller, healthy co-dominate trees.

The project file includes detailed stand prescriptions which identify existing conditions, desired conditions, and proposed treatment for moving towards desired conditions (Doc #542, BMU Diagnosis 7A, 9, 10 RX 2010). The desired conditions are based on ecological site factors, including the potential for future development of the stand, including improving stand resilience and structural diversity.

Based on my review of the record I find the project meets the Roadless Rule exception (b)(1)(ii) to maintain or restore the characteristics of ecosystem composition and structure such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period.

There is no requirement in the 2001 Roadless Rule for a project to be consistent with the applicable Forest Plan. Regardless, based on my review of the record I find the decision is in compliance with the Forest Plan hiding cover requirement (SFEIS, pp. 27 and 41).

**Issue 12, Contention 2. Appellants allege the FEIS and ROD failed to adequately address the effects of logging and roading the uninventoried roadless areas on their characteristics vis-à-vis potential for future wilderness or inventoried roadless area designation.**

**Response:** Based on my review of the FEIS, SFEIS and record I find the analysis took a hard look at the potential effects on unroaded areas. The analysis evaluated potential effects on roadless/wilderness character and the potential effects on the ability for the area to be considered for wilderness potential at some point in the future (FEIS, pp. 3-149 to 3-169; SFEIS, pp. 209 to 210).

**Issue 13. The appellants allege the analysis violates NEPA by failing to provide an alternative that eliminates units that have noxious weeds present on roads within the units. In addition they allege the decision violates NFMA by failing to include preventative measures for new weed infestations.**

**Response:** I have already discussed weeds in Issue 4, Contention3, above.

**Issue 14. The appellants allege the EA does not disclose existing amounts of DSD past "activity areas" despite the history of heavy logging and that cumulative effects of past compaction, soil displacement, erosion, and management burning are treated as irrelevant.**

**Response:** As discussed in the ROD (p. 32), the 2010 ROD was remanded by the Appeal Deciding Officer because it was not clear in the FEIS how the Forest would meet Regional Soil Standards. As a result, "a decision was made to start afresh with data collection and a field based analysis" to be documented in the Final Supplemental FEIS (November 2011) (p. 70). This very thorough analysis, which replaces the previous analysis, is documented in Final SFEIS (pp.70 to 133) and includes an extensive discussion of the affected environment, methodology, unit-by-unit measurements of previous harvest data (FSEIS, pp. 91 to 92, Tables 15 and 16), and analysis of the effects, including cumulative effects, of the proposed treatments.

In summary, field sampling in 2010 confirmed past disturbances in stands with prior timber harvesting. The majority of that disturbance, however, is no longer detrimentally disturbed (ROD, p. 32).

A substantial amount of past timber harvesting has occurred in less steep core areas of the Bozeman Municipal Watershed. Treatment units planned for pre-commercial thinning have the highest levels of past harvest in small diameter stands that were harvested 30 to 60 years ago. Evidence of past harvest is apparent in these stands but only limited amounts of detrimental soil disturbance were found during soil monitoring. In all cases, no treatment unit from any of the alternatives is predicted to exceed the Northern Region 15 percent maximum DSD standard (SFEIS, p. 71 and Tables 30 to 34, pp. 123 to 128; PF, Doc. 484).

Gallatin National Forest Soil BMPs are incorporated in the Selected Alternative (ROD, p. 15) and are listed in ROD Appendix A (ROD, p. 67 to 68). These practices minimize the occurrence of soil disturbance during harvest operations and will remediate the disturbances that do occur. Soil remediation focuses on the major areas of potential DSD in timber harvested units: temporary roads, landings, and skid trails. Gallatin National Forest soil remediation BMPs applied to this project will provide a moderate amount of immediate remediation while enhancing long term natural recovery of these sites. The application of soil remediation BMPs will also ensure that the Northern Region detrimental soil disturbance standard will be met in all fuels treatment units. As a result, Gallatin Forest Plan direction will also be met (ROD, p. 132).

In conclusion, the analysis found that for all fuel treatment alternatives, no treatment unit or subunit is predicted to exceed the Northern Region detrimental soil disturbance standard (USFS-R1 1999).

**Issue 15. The appellants allege the analysis violated ESA, NEPA, APA, and NFMA by failing to adequately examine threatened, endangered, and sensitive species and their habitats. Specifically, they allege the analysis failed to conduct plant surveys to establish baseline information prior to analysis and decision making. In addition the analysis failed to discuss which plant species did not fall into the "Most plants associated with wet, riparian, or alpine habitat" in order to discuss their potential impacts.**

**Response:** There are no threatened or endangered plant species listed by the FWS for the Gallatin National Forest.

Sensitive plant surveys were conducted in fall 2008. Field notes included in the project record (PF, Doc. 481) indicate the target species of the surveys. They *include Balsamorhiza macrophylla, Goodyera repens, Cypripedium parviflorum, Aquilegia brevistyla, Veratrum californicum, Eleocharis rostellata, Polygonum douglasii spp. austinae*. The ROD (p. 17) includes design measures to avoid plants (through area or timing restrictions). Avoidance of plant occurrences would be effective in protecting plants.

The decision is consistent with ESA, NEPA, APA, and NFMA by surveying for sensitive plants, analyzing impacts, and avoiding potential plants.

**Issue 16. The appellants allege the ROD and FEIS do not show that surveys have been conducted to determine presence and abundance of whitebark pine re-generation or if whitebark pine seedlings and saplings are present, what measures will be taken to protect them. The project should have included an alternative that excludes burning in the presence of whitebark pine regeneration consider 'Daylighting' seedlings and saplings as an alternative restoration method. There has been no analysis on the effect on grizzly bear of the loss of whitebark pine trees in violation of NEPA, NFMA, the APA and ESA. Whitebark pine is an important food source for grizzly bear.**

**Response:** Since the FEIS was released, two species that are either known, or suspected to occur on the Gallatin National Forest, have been added as "candidate" species for listing under the ESA; one of which is whitebark pine. The Regional Forester designated whitebark pine as sensitive effective December, 2011. Whitebark pine is a tree species typically found at higher elevations on the Gallatin National Forest (ROD, p. 34). Field notes in the Project File document unit visits which found no whitebark pine (PF, Doc. 529, pp. 1 to 22). The FEIS acknowledges that whitebark pine is a very important food source for grizzly bears, but is a very minor habitat component in the broader BMW project area (FEIS, pp. 3-361 to 3-362). None of the proposed treatments would affect whitebark pine (FEIS, pp. 3-361 to 3-362). Therefore, a determination of "no impact" was reached for all alternatives with respect to whitebark pine (ROD, p. 34).

There was no request for an alternative that excludes burning in the presence of whitebark pine regeneration during comment periods. Since there are no whitebark pine stands in the treatment units the request would not change the alternatives.

While there was no request for a "whitebark pine alternative" during comment periods, there was a comment on the DEIS requesting that measures be taken to "retain large, healthy trees, particularly desired or threatened species such as whitebark pine…" (FEIS, p. C-17 to 18). The response to this comment stated, "We are not proposing to thin any whitebark pine stands. Such an activity may be proposed in a future proposal (if for instance 100% of the existing stands are killed from either mountain pine beetle or whitepine blister rust), but given the high elevation of these stands and the generally low fuels present, treating such stands would occur only if it would improve the survivability of this hard hit species." The project and analysis are in compliance with NEPA, NFMA, APA, and ESA.

**Issue 17. Lynx**

**Issue 17, Contention 1. The appellants allege the BMW project, the Northern Rockies Lynx Management Direction, and the final rule designating critical habitat violate the Endangered Species Act to the extent consultation should have been re-initiated with regards to adverse modification of critical habitat after designation and that the Forest Service failed to evaluate project impacts on all occupied lynx habitat that occurs in the project area. They further allege the Forest Service is in violation of the NRLMD by evaluating the loss of winter snowshoe hare habitat differently from how the NRLMD applies other habitat standards and that the BMW consultation is flawed because it relies mostly on the NRLMD biological opinion which did not analyze adverse modification of critical habitat.**

**Response:** The BMW project went through site specific formal consultation with the US Fish and Wildlife Service (FWS) for lynx critical habitat by completing a Biological Assessment that was based on the potential impacts of the proposed federal action addressing the Primary Constituent Elements of lynx critical habitat as defined in the federal register (PF, Doc. 12, pp. D-24 to D-32). The Forest received a Biological Opinion from the USFWS concluding that "it is the Service's biological opinion that the effects of the BMW Project are not likely to result in the destruction or adverse modification of lynx critical habitat" (PF, Doc. 621, p. 13 and ROD, p. 34). The USFWS went on to say in their biological opinion "we have determined that the proposed action is in compliance with the NRLMD, and that its effects on lynx were included in those anticipated and analyzed in the 2007 biological opinion on the NRLMD.

The proposed action has components that will adversely affect lynx via reductions in lynx/snowshoe hare habitat, i.e. reductions in the quality of lynx critical habitat, in the affected LAU. However, the scale of the proposed action will not preclude continued adequate amounts of snowshoe hare habitat needed to sustain lynx in the LAU, and would retain the LAU's current ability for the PCE to function. When added to the status of the critical habitat unit, the effects of the project are such that the conservation role of the lynx critical habitat unit (5) will continue to support its intended conservation role for lynx" (PF, Doc. 621). The BMW project further implements monitoring direction from the NRLMD (FEIS, p. 3-192) and clearly details direct, indirect and cumulative impacts to lynx (FEIS, p. 3-171 to 3-192), which include detailed information on impacts to foraging habitat (snowshoe hare habitat) (PF, Doc. 618, Biological Assessment – Canada Lynx, pp. 13 to 15). Detailed survey maps, reports and calculations used in the lynx analysis can be found in the project file (Docs. 694 to 700).

Based on my review and analysis I conclude the BMW project is in compliance with ESA and the NRLMD.

**Issue 17, Contention 2. The appellants allege the Forest Service violates the NRLMD by failing to identifying core habitat areas because they are not mapped in lynx analysis documentation.**

**Response:** The lynx analysis unit (LAU) map and the lynx habitat map contained in the project record are included in the area identified as "core" habitat in the 2005 Recovery outline (PF, Docs. 694 and 696). As defined by the NRLMD, the LAU is the appropriate scale for analysis and consultation and the USFWS found that the effects of the BMW project were adequately analyzed (ROD, p. 34).

**Issue 17, Contention 3. The appellants allege the BMW project violates NEPA and ESA because it failed to take a 'hard look' at the BMW project combined with reasonably foreseeable actions on adjacent lands for lynx, specifically the South Cottonwood logging project, the City of Bozeman's proposed new dam, the Sourdough trailhead improvements, the Montana DNRC plans to log, and the City of Bozeman proposed logging.**

**Response:** Cumulative effects for lynx were analyzed in detail for the BMW project (PF, Doc. 642; FEIS, pp. 3-184, 3-186 to 3-190). As defined by the NRLMD, the LAU is the appropriate

scale for analysis and consultation and the USFWS found that the effects of the BMW project were adequately analyzed (ROD, p. 34). The North Gallatin LAU serves as the spatial boundary used in consideration for potential cumulative effects for lynx (FEIS, p. 3-175). The South Cottonwood and the City of Bozeman's vegetation projects were identified in the list of reasonably foreseeable future projects that could impact lynx habitat in the LAU (FEIS, p. 3-185). The BMW Supplemental FEIS Cumulative Effects Summary for wildlife contains a summary of potential cumulative effects associated with reasonably foreseeable future actions on private, City of Bozeman (COB) and Department of Natural Resources (DNRC) lands in the vicinity of the proposed federal fuel reduction project in the Bozeman Municipal Watershed (BMW). The summary was prepared for wildlife issues identified in the BMW FEIS (USDA, March 2010) with respect to new information that was identified between issuance of the BMW FEIS and release of a Supplemental EIS for the project.

Activity on private land includes improvements at the Sourdough Trailhead on land administered Gallatin Valley Land Trust. This activity occurred in October 2010 and involved minor expansion of parking facilities and installation of a permanent vault toilet. These activities occurred in an area already developed as a trailhead facility, and thus will not have notable impacts to wildlife habitat. Specifically for the lynx analysis, the City of Bozeman (COB), proposal is within the cumulative effects analysis (CEA) area considered for lynx (North Gallatin LAU). The DNRC proposal is outside the CEA/LAU. Cumulative effects from reasonably foreseeable actions on COB lands were considered for lynx and lynx critical habitat in the FEIS and the BA (PF, Doc. 618). Combined effects of the BMW project with proposed vegetation management on COB lands would not exceed any habitat management standards for lynx and this was coordinated with the USFWS and they indicated that no further consultation was necessary given new information for proposed activities on City lands (PF, Doc. 643). The analysis and project are in compliance with NEPA and the ESA.

**Issue 17, Contention 4. The appellants allege the Forest Service failed to evaluate the importance of red squirrel habitat to lynx including critical and core lynx habitat and failed to consider that logging of lynx critical habitat will reduce red squirrels (alternate prey species), thereby being in violation of ESA and NEPA. They further allege that that the project failed to estimate cumulative loss of red squirrel habitat, which is also winter snowshoe hare habitat and should have included adverse impacts on squirrel densities from past logging activities.**

**Response:** This issue was addressed in the Response to Comments in the SFEIS (SFEIS, p. 261). A detailed assessment of potential project impacts to lynx was provided in the FEIS and further developed in the Biological Assessment and Supplemental Biological Assessment in consultation with the USFWS (PF, Doc. 618 and 620). Direct, indirect, and cumulative impacts to alternate prey species (red squirrel) and winter snowshoe hare were considered in detail in this analysis in relation to effects to lynx foraging habitat (red squirrel and snowshoe hare habitat). This analysis included NRLMD direction relating to habitat for alternate prey species and snowshoe hare habitat (Guideline VEG G5 and VEG G10 and Standards VEG S5 and VEG S6) (FEIS, pp. 3-174, 3-177 to 3-179, 3-183 to 3-191; Appendix D, p. D-14). Based on this analysis and consultation with the USFWS, the USFWS "determined that the proposed action is in compliance with the NRLMD and that its effects on lynx were included in those anticipated and

analyzed in the 2007 biological opinion on the NRLMD (PF, Doc. 621). This project is in compliance with NRLMD, ESA, and NEPA.

**Issue 17, Contention 5. The appellants allege the Gallatin National Forest is in violation of the NRLMD and ESA by misrepresenting the extent of the exemptions for VEG S5 and VEG S6 for fuel treatments in the WUI.**

**Response:** The BMW project is within the WUI as mapped in the Community Wildfire Protection Plan (CWPP) developed by Gallatin County (FEIS, p. 3-173). The WUI map can be found in the Project File under Fire and Fuel References (PF, Doc. 358, p. 61). Detailed in the NRLMD ROD Glossary is the definition for WUI: the wildland urban interface is the area adjacent to an at-risk community that is identified in the community wildfire protection plan (PF, Doc. 818, Glossary, p. 15). Additionally, the BMW project went through site specific formal consultation with the US Fish and Wildlife Service (USFWS) for lynx and lynx critical habitat by completing a Biological Assessment (PF, Docs. 618 and 620). The Forest received a Biological Opinion from the USFWS concluding that the BMW project fell within the range of fuel or timber management projects analyzed in their first-tier biological opinion and found the effects of the project were adequately analyzed (PF, Doc. 619).

**Issue 18. Grizzly Bear**

**Issue 18, Contention 1. The appellants allege the project documents state that no grizzly bear occurrences have been recently documented within any of the proposed treatment sites and grizzly bear have been documented in the Project area vicinity.**

**Response:** The wildlife analysis for the BMW project states that no grizzly bear occurrences have been documented within any of the proposed treatment sites (FEIS, p. 356) and it goes on to state that grizzly bear use is occasionally documented within the analysis area (FEIS, p. 367). The analysis also acknowledged that grizzly bear sightings have been documented in Hyalite and Bozeman Creek drainages and this information was documented and included in the Biological Assessment and Biological Opinion for this project (FEIS, p. 356 and Appendix D, p. D-67; PF, Docs. 622 and 623).

**Issue 18, Contentions 2 and 3. The appellants allege the Forest and the FWS failed to state how the BMW project complies with the Incidental Take Statement for the 2006 Travel Management Plan and are in violation of the ESA and NEPA.**

**Response:** Detailed in the BO for this project, the FWS stated that a biological opinion on the effects of the Forest-wide Travel Management Plan, pertaining to the construction and use of roads, was completed on September 20, 2006 (PF, Doc. 803). This opinion analyzed the effects of the Travel Plan on grizzly bear both within the recovery zone and the distribution area outside of the recovery zone. The effects of the existing forest roads and temporary project roads were analyzed and the effects of access management on the Forest, including the action area, were fully considered in the analysis in the 2006 biological opinion.

The biological opinion included an incidental take statement along with terms and conditions for the proposed action. According to the FWS, the road use associated with this project would not impart any effects to grizzly bear in addition to those analyzed in the 2006 biological opinion and the proposed project would be in compliance with the incidental take statement of that opinion. Therefore, consultation on the effects of roads to grizzly bears has been completed and incidental take has been exempted. Based on research, the temporary and short-term nature of the action, and the location of the proposed action, FWS does not anticipate any incidental take of grizzly bear as a result of fuel reduction activities, with the exception of the impacts from helicopter logging (FEIS, Appendix D, p. 83; PF, Doc. 623).

Additionally, the ROD for this project detailed grizzly bear mitigation measures which include the Terms and Conditions from the Biological Opinion and the Incidental Take Statement for this project and from the direction for roads constructed for this project from the 2006 Travel Management Plan (ROD, p. 16) and other mitigation measures relating to helicopter activity. The Biological Assessment for grizzly bears also detailed how the proposed action would comply with all applicable terms and conditions listed in the BO for Gallatin Forest management actions outside the recovery zone and for the Gallatin National Forest Travel Management Plan (PF, Doc. 12, Appendix D, p. 45 and 83). The project complies with the Incidental Take Statement for the 2006 Travel plan and is in compliance with the ESA and NEPA.

**Issue 18, Contention 4. The appellants allege that the Forest Service is in violation of ESA by not formally consulting for this project and further allege that the cumulative effects to grizzly bear as a result of this project were not considered, which is a violation of NEPA, NFMA, APA, the Clean Water Act and the Forest Plan.**

**Response:** Please refer to Issue 18, Contention 1 and 2 for detailed information on the formal consultation that was completed for this project (SFEIS, p. 263; FEIS, Appendix D, pp.35 to 52). This consultation and analysis included direct, indirect, and cumulative impacts to grizzly bears as a result of this project and further detailed the status of grizzly bear within the project area with the most recent information on grizzly bear distribution in the GYA (SFEIS, p. 263; FEIS, pp. 3-358, and 3-363). Additionally, a supplemental cumulative effects analysis for wildlife was completed (PF, Doc. 642) and was associated with reasonably foreseeable future actions on private, COB, DNRC lands in the vicinity of the proposed federal fuel reduction project. The COB proposed action is within the area assessed for cumulative impacts to grizzly bear, but the DNRC proposal is not within the cumulative effects area.

Vegetation management on city lands was considered in the FEIS as a reasonably foreseeable action with possible cumulative effects to grizzly bear. Although proposed actions would alter suitable habitat for grizzlies and contribute disturbance impacts, the combined effects of these projects (including our BMW proposal) would occur well outside the designated recovery zone for grizzly bear. The BA acknowledged potential adverse effects from the proposed action combined with reasonably foreseeable similar treatment on COB lands. The Forest received a BO from the USFWS with terms and conditions to minimize impacts of the federal action. Further assessment of cumulative effects from the COB and DNRC proposals would not change the conclusions reached for grizzly bear in the FEIS or BA. The email from K. Dixon, FWS, indicated no further consultation necessary given new information for proposed activities on

COB lands (PF, Doc. 643). The Forest Service formally consulted and analyzed cumulative effects to grizzly bears. This project is in compliance with NEPA, NFMA, APA, and ESA.

**Issue 19. The appellants allege the Forest violated NEPA by failing to issue a Draft SEIS. Given so many new updates in the FSEIS, the agency should have put out a draft and allowed for comment instead of just issuing a FSEIS.**

**Response:** The SEIS was circulated for comment, in compliance with NEPA provisions for supplementing an EIS. The appellants were notified of the comment period and were mailed a copy of the draft SFEIS (PR, Docs. 88 and 89). As described in the FEIS (p. 244), the public comment period on the SFEIS was open from June 4 to July 18, 2011. As required by 40 CFR 1503.1, a Notice of Availability of the Supplemental Final EIS for comment was published in the Federal Register in June 2011 (PF#90).

Four comment letters were received, all of which were either from the appellants or on their behalf. In the ROD, the Forest Supervisor goes on to explain that, "Based on the public comments received in June/July 2011, there was no need for additional analysis in the Supplemental Final Environmental Impact Statement (SFEIS May 2011). However, we revised the SFEIS to include responses to the comments in Appendix B – Response to Comments…(PF#4, p. iii-iv, 244-271)…and to reflect the comment period. The Appendix includes factual corrections, sources where comments are addressed and minor changes in the content. In accordance with 40 CFR 1503.4 the comments, responses, and changes were circulated. The Final SFEIS (November 2011 and Final EIS (March 2010) constitute the supporting analysis for the Bozeman Municipal Watershed Project." The use of a final supplemental EIS without a *draft* supplement EIS is in compliance with NEPA.

**Issue 20. The appellants allege the Forest violated NEPA by failing to address cumulative impacts to water quality, wildlife, and their habitat.**

**Response:** This is a generalized contention dealt with more explicitly in many of the previous contentions. I have reviewed the record relative to the specific contentions. Based on that review, I conclude that cumulative effects were appropriately addressed.

RECOMMENDATION

I have reviewed the record for each of the contentions and have found that the analysis and decision adequately address the issues raised by the appellants. I recommend the Forest Supervisor's decision be affirmed and the appellants' requested relief be denied.

KEVIN T. RIORDAN
Forest Supervisor

cc: Mary C Erickson, Teri Seth, Peter N Zimmerman, Ray G Smith, Steve Christiansen

USDA United States Department of Agriculture | Forest Service | Region One | Northern Region
200 East Broadway
Missoula, MT 59802

**File Code:** 1570 (215)
#12-01-00-0026

**Date:** March 5, 2012

Michael Garrity
Executive Director
Alliance for the Wild Rockies
PO Box 505
Helena, MT 59624

**CERTIFIED MAIL RECEIPT**: 7000 1530 0002 8392 4408

Dear Mr. Garrity:

This is my decision on the disposition of the appeal you filed, on behalf of the Alliance for the Wild Rockies, Native Ecosystems Council and Montana Ecosystems Defense Council, regarding the Bozeman Municipal Watershed ROD on the Gallatin National Forest.

My review of your appeal was conducted pursuant to, and in accordance with, 36 CFR 215.18 to ensure the analysis and decision are in compliance with applicable laws, regulations, policy, and orders. I have reviewed the appeal record, including your arguments, the information referenced in the Forest Supervisor's February 8, 2012 transmittal letter, and the Appeal Reviewing Officer's analysis and recommendation (copy enclosed). The transmittal letter provides the specific page references to discussions in the (ROD) and project file, which bear upon your objections. I specifically incorporate in this decision the appeal record, the references and citations contained in the transmittal letter, and the Appeal Reviewing Officer's analysis and recommendation.

The Appeal Reviewing Officer has considered your arguments, the appeal record, and the transmittal letter and recommends the Forest Supervisor's decision be affirmed and your requested relief be denied.

Based upon a review of the references and citations provided by the Forest Supervisor, I find the objections were adequately considered and addressed in the ROD. I agree with the Appeal Reviewing Officer's analysis and conclusions in regard to your appeal objections. I find the Forest Supervisor has made a reasoned decision and has complied with all laws, regulations, and policy.

After careful consideration of the above factors, I affirm and approve the Forest Supervisor's decision to implement the Bozeman Municipal Watershed project. Your requested relief is denied.

My decision constitutes the final administrative determination of the Department of Agriculture [36 CFR 215.18(c)].

Sincerely,

Jane L Cottrell

JANE L. COTTRELL
Deputy Regional Forester

cc: Teri Seth, Steve Christiansen, Mary C Erickson, Ray G Smith, Peter N Zimmerman, Kevin Riordan