

APPENDIX C

Response to Public Comments Received for the Environmental Assessment

People And Organizations Sending Comments

- Riemer, Bob (D27)
- Lewis, Carl (D31)
- Sherman, Roger (D32)
- Flowers, Mayre (D33)
- Hammer, Keith - Swan View Coalition (D34)
- Sullivan, Patrick (D35)
- Wuerthner, George (D36)
- Dettmann, Jim (D37)
- Blackler, Edd (D38)
- Mildrexler (Diephuis), Andrea (D39)
- Zaber, David - Habitat Education Center (D40)
- Garvey, Lydia (D41)
- Harvey, Paul (D42)
- Cushman, Kevin (D44)
- Dalke, Dawna (D45)
- Johnson, April – American Wildlands (D46)
- Barnes, Paula & Ray Moore (D47)
- Fella, Monica - Sierra Club (D48)
- Boyd, P.W. (D49)
- Streeter, Dave (D50)
- Andrews, Richard (D51)
- Willison, Pamela (D52)
- Blank, Dee (D53)
- Rissien, Adam - Wildlands CPR (D54)
- Johnson, Lindsey (D55)
- Klempel, Rachel (D56)
- Sohl, Edward (D57)
- Skinner, Dave (D58)
- Hodgeboom, Fred - Montanans for Multiple Use (D59)
- Upton, Lisa (D60)
- Montgomery, Arlene - Friends of the Wild Swan (D61)
- Waldron, Susie (D62)
- Meister, Oliver – North Fork Hostel & Square Peg Ranch (D63)
- Elliott, Jon & Pat (D64)
- Meyer, John - WildWest Institute (D65)
- Orahoske, Andrew (D66)
- Becker, Dusti (D67)
- Damrow, Chris – F.H. Stoltze Land & Lumber Co. (D68)

Access

- 1. Don't propose to do something important like reducing fire risk... and then combine it with further restriction of our access to open public areas... (D27)**

FS Response: We appreciate your support for reducing the risk of severe and intense wildfires, one of the purposes of this project. However, another purpose of the project is to improve security for grizzly bears by reducing motorized access. We have acknowledged in the EA that reducing motorized access reduces the disturbance potential to grizzly bears and other wildlife species; we also recognize that there is a tradeoff involved as this affects motorized recreation opportunities in the area. One of the alternatives (Alternative 4) is designed to leave more motorized trails open than the other alternatives to preserve this type of recreational activity in a portion of the project area.

- 2. I don't think we have to manage the forest by excluding the public just because they can't walk that far... With the closing of roads, we no longer are able to enjoy so much of the National Forest lands because we are not able to get there. (D31)**

FS Response: The alternatives included few road restrictions to wheeled motorized vehicles on roads that are currently open. For example, Alternative 2 proposed closing roads yearlong to wheeled motorized vehicles on 0.5 miles of road in the project area; Alternative 3 proposed closing roads yearlong to wheeled motorized vehicles on 12.8 miles of road; and Alternative 4 closed roads yearlong to wheeled motorized vehicles on 4.0 miles of road. The alternatives also proposed restricting wheeled motorized vehicles for portions of the year (ranges from 0.0 miles to 4.6 miles depending on the alternative). The effects of road closures as described in the EA (including effects to wildlife and recreation users, both motorized and non-motorized users) will be considered by the decision maker along with public comments in coming to a decision for this project.

- 3. Please fully meet your Forest Plan standards for limiting motorized vehicle access and providing grizzly bear habitat security in your Red Whale Project...(D33, 36, 37, 39, 46, 47, 48, 49, 50, 51, 52, 53, 55, 56, 60, 62, 66, 67)**

FS Response: Alternative 3 was designed to immediately achieve the road density and security habitat provisions associated with Amendment 19 (A19). All of the action alternatives limit motorized vehicle use to various degrees in order to respond to one of the purposes of the project - to improve grizzly bear security. One of the alternatives, as was described in this comment, fully meets the access parameters associated with A19 at this time.

- 4. I support closing the 25 miles of trail and 13 miles of road to motorized use, as necessary to meet the Forest Plan standards...I support travel management outlined in your Alternative 3...(D33, 36, 37, 38, 39, 40, 46, 47, 48, 49, 51, 52, 53, 54, 55, 56, 60, 62, 66, 67)**

FS Response: Thank you for your comments.

5. **Alt. 3 meets A19 motorized access and grizzly bear security standards, while the others do not; closing 25 miles of trail and 13 miles of road to motorized use. (D34, 61)**

FS Response: Please refer to the response to comment #3.

6. **I vehemently oppose further road and trail closures, especially those that will occur before the project is completed. What if these projects go to a no-bid condition and are not implemented fully? (D58)**

FS Response: The road and trail closures are intended to improve security for grizzly bears, one of the purposes of this project. The other purposes of the project relate to fuels, wildlife habitat, and state access to a parcel of land. The effects of road/trail closures are disclosed in the EA and will be considered by the decision maker. If these proposed road/trail closures are selected in the decision, they will be considered separate from the fuels activities (i.e., the fuels work and the road/trail closures will be independent of each other).

7. **Alt. 3 removes or up-sizes more culverts from bermed roads than the other alternatives, although we urge you to remove rather than up-size culverts on bermed roads because even larger culverts will eventually fail. Better yet, decommission these bermed roads. (D34)**

FS Response: We have proposed culvert upsizing and removal on bermed roads to help waterproof these roads while providing the option of using the roads in the future. Road decommissioning is also used to reduce total road density by removing roads from the road system. The total road density within the project area already achieves Amendment 19 Total Motorized Access Density (TMAD) provisions and further road decommissioning is not necessary to meet grizzly bear security objectives.

8. **Alt. 3 doesn't need to use nearly as many currently closed roads for fuels reduction as the other alternatives and hence requires fewer other temporary road closures to mitigate for the fuels reduction disturbances. (D34)**

FS Response: This is true. The number of miles of temporary and closed roads needed for fuels reduction per alternatives 2, 3, and 4 are identified in Table 2-2 (EA, p. 2-14), Table 2-6 (p. 2-27), and Table 2-9 (p.2-33), respectively.

9. **He does not want to see roads like Red Meadow closed down for travel by general recreation users. He does not support Alternative 3 since this would propose to close Red Meadow Road. (D35)**

FS Response: Thank you for your comments. We will consider your comment when evaluating tradeoffs for the decision.

10. Decommission roads and remove culverts. (D41, 47, 53, 60, 67)

FS Response: Please refer to the response to comment #7.

11. I support leaving the 25 miles of trail and 13 miles of road for motorized use. I do not support any closure of the Red Meadow Road. (D42)

FS Response: One of the purposes of this project is to improve security for grizzly bears by reducing wheeled motorized access. All of the action alternatives include varying amounts of road/trail closures to address this purpose. Additionally, the No Action Alternative (Alternative 1) would not reduce road/trail access to wheeled motorized vehicles from the current situation.

The EA discloses the effects that would be expected to occur because of reducing motorized access including the effects to motorized recreation opportunities (pages 3-290 to 3-298). Alternative 4 is designed to leave more motorized trails open than the other alternatives to preserve this type of recreation activity in a portion of the project area. Additionally, Alternatives 2 and 4 do not include the closure of Red Meadow Road.

12. I oppose the closure of Hay Creek Road and Red Meadow. This is a very poor excuse to close down public lands to public use and enjoyment. Many taxpayers cannot access public lands except for the use of motorized wheeled vehicles and I oppose denying the public access to these roads. (D45)

FS Response: Restrictions affecting motorized access proposed in the Red Whale Project are intended to improve security for grizzly bears. Alternative 3 is the only alternative proposing to close these two roads. Alternatives 2 and 4 propose no closure of Red Meadow Road and include only a seasonal closure of Hay Creek Road. The effects of road closures as described in the EA (including effects to wildlife, and motorized and non-motorized recreational users) will be considered by the decision maker, along with public comments, in coming to a decision for this project.

13. Please provide the source for the assertion that a road converted to a trail is somehow less desirable than obliterating the road prism completely. (D58)

FS Response: Converting roadbeds to system trails results in higher trail maintenance costs since the average roadbed width is 12 feet and the average trail width is 24 inches. The majority of roadbeds have drainage ditches that promote vegetation growth (such as alder) at a faster rate than the average trail with no drainage ditches. Clearing this vegetation, maintaining a wide tread width, and addressing road structures contained on trail tread all equate to higher maintenance costs. For example, the initial five miles of the Whale Lake Trail #11 is on a bermed roadbed. The cost for clearing the vegetation along the trail averages \$720 a day for a 5-person Montana Conservation Corp crew. They work with brushsaws on foot and can accomplish a mile of clearing a day. The crew can accomplish approximately 3 to 4 miles a day on the average 24-inch trail using the same equipment. The comments we hear from general forest users is they do not enjoy the “tunnel” effect the alder and yew create on bermed or closed roadbeds converted to

trails. This information is based upon the professional judgment of the recreation staff on the district and informal public input.

14. The alternatives rely on gates and berms. These could also be rendered less effective than they already are by reducing cover (for bears) and allowing illegal access around them. (D61)

FS Response: The Forest's gates and berms are designed to physically prohibit wheeled motorized use. However, if the public is determined to violate the physical barrier, then the Forest Service is left with an enforcement issue. The majority of the closure devices are respected, although there are a few that are violated. Law enforcement monitors these areas and issues the appropriate violations.

15. Your other alternatives (Alts 1, 2 & 4) in the EA, do not close Red Meadow Road nor meet your own Forest Plan standards. (33, 36, 37, 38, 39, 46, 48, 49, 51, 52, 54, 55, 56, 60, 66)

FS Response: Alternative 1 is the No Action Alternative and we are required to analyze this alternative and compare it as a baseline with the other alternatives. Alternatives 2 and 4 do not propose to close Red Meadow Road and do not make the same kind of gains in open road density and security standards as Alternative 3. The effects of these alternatives on various resources such as grizzly bears, recreation users, both motorized and non-motorized, water, fisheries, etc. have been disclosed in the EA and will be considered along with public comments to make a decision for this project.

16. Of great concern is Alt. 4, which would go gangbusters on logging and not meet Amendment 19 motorized access standards. (D32)

FS Response: Over half of the additional acres in Alternative 4 are in stands that are currently sapling-sized where commercial products would not be removed. This alternative does not immediately achieve motorized access provisions associated with Amendment 19; however, Alternative 4 makes positive contributions to improving grizzly bear habitat.

17. The closure of Road 1671 on the Whale Creek side was changed from a gate to a multiple berm; you can already observe distinctive ATV tracks crossing over. A gate with big rocks on each side make a much better barrier, (and) in case of fire gates are easily open and closed for access. (D63)

FS Response: Thank you for your observations. We will pass on your information to the district road manager.

18. The Forest Service should be closing as many roads as possible throughout the Forest. In addition to closure, the roads should be obliterated (decommissioned) and restored with native vegetation... (D66)

FS Response: Thank you for your comment regarding management of other areas on the Forest.

Botany

19. Alt. 3 ...has the lowest risk of spreading noxious weeds that are already a huge problem in the project area. (D34)

FS Response: As discussed in Chapter 3 of the EA (Noxious Weeds Section), Alternative 3 does have the lowest risk for establishment and spread of noxious weeds into new areas, based on the least amount of proposed ground disturbance and greatest amount of proposed canopy cover remaining.

20. I strongly encourage you to take more preventative action (against weeds) in all units and after-treatment action needs to occur. Even though you already have strong guidelines for washing equipment and so on, it would be a good thing to spray noxious weed at and around the proposed units before, during and after treatment as a precaution. (D63)

FS Response: The Design Criteria in Chapter 2 of the EA (Noxious Weed section) describe treatment for weeds along haul routes – once before hauling and once after hauling.

21. ...spotted knapweed has already spread surprisingly far into the backcountry, behind road closures and into old clearcuts, it travels further than anyone would expect. Hawkweed is on its way to do even more damage. (D63)

FS Response: Table 3-21 in the EA displays the known level of weed infestations within and near the project area. Invader weed species tend to be shade-intolerant, with the exception of orange and yellow hawkweeds (personal observation). Invasive plants establish in disturbed areas where other plants are slow to establish and recover. These areas are mostly associated with road right-of-ways, landing sites for timber harvesting, gravel pits, mechanically piled slash burn piles, skid roads, mechanical site preparation treatment on well-drained or shallow soils, power line corridors, and mines. Most of the area outside of these more heavily disturbed sites has experienced limited invasive plant establishment. Spotted knapweed and St. John's wort are roadside species and generally have not invaded into understory forested habitats. These species do, however, have potential for expansion into open canopies and natural occurring forest openings such as grasslands and open rock outcrops.

Orange and yellow hawkweeds are Category 2 species (recent invaders to Montana). Life history and reproductive biology of these two invasive hawkweeds allow for rapid spread, once established, not only on open areas but also under forested conditions. Unlike the other known weeds in the project area that remain primarily within open disturbed areas, orange and yellow hawkweeds can spread into forested habitats beneath the forest canopy despite reduced understory light levels. On page 2-48 of the EA is a description of specific actions that would be used to contain existing noxious weed populations. Additionally, spraying along haul roads would also be implemented to further contain weeds.

22. Noxious weed presence may lead to physical and biological changes in soil. Organic matter distribution and nutrient flux may change dramatically with noxious weed invasion. Spotted knapweed (*Centaurea biebersteinii* D.C.) impacts phosphorus

levels at sites (LeJeune and Seastedt 2001) and can hinder growth of other species with an allelopathic mechanism. Specific to spotted knapweed, these traits can ultimately limit native species' ability to compete and can have direct impacts on species diversity (Tyser and Key 1998; Ridenour and Callaway 2001).

Has the FS conducted studies of invasive weed succession following disturbances such as this?...How does invasive succession fit into soil productivity in scenarios such as that of *Centaurea*, which changes microbial composition via allelopathy? (D65)

FS Response: There have been no studies on a local level documenting invasive weed succession following disturbance. Certainly, succession is altered with any weed invasion. Noxious weeds may alter organic matter distribution and nutrient flux such as spotted knapweed's greater ability to uptake phosphorus over some native species in grasslands (Thorpe, et. al., 2006). In addition, noxious weeds may influence species richness and displace resident species by reducing native seedling establishment (Yurkonis, et. al., 2005).

Invasive species such as spotted knapweed and St. John's wort are roadside species where habitat and soils alterations are not of as these areas are already highly disturbed and altered from natural processes. Generally, these species have not invaded into understory forested habitats, where there would be a concern for soil and habitat alterations. In the project area, there is a concern that invasive plants may spread into treatment areas after the areas are disturbed. Weed invasion and expansion has been observed in areas of past timber management projects. Of particular concern are orange and yellow hawkweeds. Life history and reproductive biology of these two invasive hawkweeds allow for rapid spread, once established, not only on open areas but also under forested conditions. Unlike the other known weeds in the project area that remain primarily within open disturbed areas, orange and yellow hawkweeds can spread into forested habitats beneath the forest canopy despite reduced understory light levels.

To reduce the potential for weed invasion into the forested communities design criteria as described in Chapter 2 are incorporated into the project (e.g. minimize soil disturbance, treat weeds before and after management, reseed some highly disturbed sites with desirable native vegetation). These design criteria will not prevent all potential for weed establishment into the newly disturbed areas but will help reduce the risk of weed invasion associated with these management activities.

Economics

23. ...the offer of timber and associated revenues is simply inefficient to cover administrative costs, and this EA is nothing more than an exercise in fiscal futility. Red Whale should have been scaled up to an EIS project of sufficient size and volume to cover costs from start to finish. (D58)

FS Response: The purpose of this project was three-fold: fuels, wildlife security and habitat, and providing access to state land. This was not a project designed to generate revenues through timber harvest; however, some of the fuels reduction treatments may result in products that could be sold to cover some of the costs of the projects.

- 24. If a culvert is replaced it must be monitored and maintained. Where will the funds come from? How often will monitoring and maintenance take place? Will snowmobilers pay for the monitoring and maintenance since they are the primary beneficiaries of replacing the culverts? (D61)**

FS Response: The culverts proposed for replacement would become larger-capacity pipes than they are now. This would reduce the probability of potential failure. Monitoring would still take place, particularly after high flow events. Monitoring at this time is funded out of road management funds. There are a variety of uses on roads besides snowmobiling that would benefit from replacing culverts; e.g. hunters, hikers, stock-users, and preserving the option for future management of the area.

- 25. How much funding has the FNF requested for restoration of vegetation that is not tied to timber sales? How much funding has the FNF requested for other restoration such as road obliteration, culvert removals or replacements, etc. that is not tied to timber sales? As far as we know, the FNF has not requested funds for these restoration projects on a landscape level, instead relying on logging projects to fund the restoration. ...this policy is destined for disaster. (D65)**

FS Response: We have used a variety of funding sources for restoration or other resource management projects that are not directly tied to timber sale sources. One of our main sources is using appropriated dollars (allocated by Congress as part of the regular Forest Service funding) from soil/water, wildlife, or road funds. As an example, most of our road decommissioning projects are funded with appropriated dollars rather than timber sale receipts. Another example is planting of conifer seedlings, which also receives funding from a variety of sources, including appropriated dollars, monies received from other fee activities on the National Forests, and private organizations (such as The Arbor Day Foundation).

Fire/Fuels

- 26. The EA states Alternative 4 “responds to issues regarding a need to enlarge treatment areas and improve connectivity of treated areas to be more effective in severe burning conditions.” More effective at what? The EA does not say. This vague excuse for excessive thinning and logging turns the principles of habitat connectivity on its head and is unsupported by either wildlife or fuels reduction research. (D34)**

FS Response: The EA (p.2-33) goes on to say, “This alternative is similar to Alternative 2 except it has additional units to increase the amount and effectiveness of mechanical fuels reduction in the project area. It also includes one additional prescribed burn unit than is in Alternative 2, which is in the wildland urban interface.” The reference to effectiveness relates to the purpose and need items listed under fuels. These include: lower the risk of severe and intense wildfire should a fire occur in the future (i.e., reduce the probability of a crown fire); improve our ability to initial attack and control fires; help protect human life by providing a safer environment for firefighters and the public should a fire occur; help protect identified human and natural resource

values in the event of a future wildfire; increase the diversity of tree composition to more fire tolerant species. In Chapter 2 under comparison of alternatives, effects indicators explain how the different alternatives compare relative to effectiveness.

27. Our cautious acceptance of fuels reduction work immediately adjacent to private property, homes and other structures most certainly does not extend to the law-busting project proposed by Alternatives 2 and 4. (D34)

FS Response: Each specialty area in Chapter 3 addresses Regulatory Framework and Consistency. Any laws pertaining to this EA are addressed in those sections.

28. I agree whole-heartedly with the necessity of thinning and controlled burning in the North Fork Flathead River drainage. (D31)

FS Response: Thank you for your comment.

29. He would like to see an alternative that allows for fuels treatments as well as maintaining all the motorized trail opportunities. (D35)

FS Response: It is possible to include aspects of different alternatives in one decision. In other words, though a specific alternative that includes your examples of fuel treatments with no reductions in motorized trails was not evaluated the decision maker could incorporate these two elements into his/her decision.

30. HEC (Habitat Education Center) supports careful and effective fuels reduction projects that protect public and private property as long as the long-term management approach includes restoration of natural processes (fire) at scales and intensities appropriate to the region. (D40)

FS Response: Restoration of natural processes is beyond the scope of this project. Although many of the activities proposed may be considered a form of restoration of natural processes, that was not part of the purpose and need for this project.

31. The closing of Forest Service roads by gate, or worse a berm, delays the fire crew quick access to so much of the North Fork in the case of fire. (D31)

FS Response: The effects of access management to fire response are disclosed in the EA on pages 3-60 through 3-61.

32. In terms of fuels reduction, the simple fact is that most of the North Fork, South Fork and the Flathead National Forest in general have too much standing volume. The system is not stable, as indicated by the number and intensity of fires. (D58)

FS Response: The number and intensity of fires is not necessarily related to the stability of a system. As discussed in Chapter 3 (Historic Natural Fire Regimes section of the Fire and Fuels portion), the majority of the Red Whale Project area is considered Fire Regime III or IV. These

forests typically had large fires every 35-100 years of mixed or stand replacing severity. The vegetation section further describes the existing condition of the vegetation resource in the Red Whale project area relative to the “natural” or historical range of variability (EA, p. 3-18 through 3-29).

33. Alternative 4 was alleged to be responsive to our scoping input regarding the need to make treatment units larger and more connected to improve effectiveness of stopping wind driven crown fires. Alternative 4 offers very little significant change with the bulk of the increased treatments planned in the pre-commercial thinning area of the Red Bench Fire. (D59)

FS Response: Alternative 4 was developed to treat more acres in the wildland urban interface than the proposed action. This alternative was developed by an interdisciplinary team with many resource considerations in mind.

34. You fail to use the best available science to evaluate the effects of alternatives relative to fire spread and behavior. A dynamic fire model should be used to compare no-action to the various alternatives to evaluate alternative effectiveness under average and severe wind-events. (D59)

FS Response: The fire behavior models NEXUS, FARSITE, and FLAMMAP were used to evaluate alternatives. These models are considered by the district fuels specialist to incorporate the best available science concerning fire behavior modeling.

35. All the action alternatives will fail to protect private property if a severe fire/wind event occurs to the west of the project area because of inadequate width of fuel break and lack of connectivity between units. (D59)

FS Response: The objective of treatments is to improve our ability to attack and control fires safely and effectively. They are not designed to eliminate fire from the landscape or stand, but to reduce its intensity. We believe the treatments do just that. Our analysis shows that it would take substantially higher winds to initiate torching of trees or sustain a crown fire (EA, p. 3-56 through 3-59).

36. With no pre-treatment of tree crown removal or manipulation of ground fuels prior to prescribed burning, the probability of getting desired results on the ground is greatly reduced. It is a given that unless tree canopy is reduced the objective of the burn will not be accomplished to any significant degree, and that means the burn must be conducted under conditions that will produce a fire with the intensity to kill the trees. Those conditions would have to be dry enough to produce crown fires, and the amount of fire damage to the soil organic horizons will reduce productivity and increase erosion with resulting loss of topsoil. The probability of the fire escaping the treatment areas will be greatly increased when fire intensity prescription must kill mature trees. (D59)

FS Response: A soil scientist analyzed effects to the soil resource related to prescribed burning in Chapter 3 of the EA. Risk of escape is addressed in a site-specific prescribed fire burn plan that is completed before implementing any prescribed burn. If risk of escape is considered too high when the burn plan is completed, mitigation methods may be used such as using additional holding and/or contingency firefighting forces.

As described in Chapter 2 (EA p. 2-17), the burns would be designed to be low to moderate intensity and only about 1/3 to 1/2 of the total acres are expected to be directly affected by fire. Given this desired outcome, prescribed burning would not need to occur under extremely dry conditions. An active crown fire throughout the units is not desired, rather a mix of fire intensities ranging from surface fire to individual or group tree torching. Tree mortality from fire and damage to soil organic horizons are not always a direct correlation. Often in the spring or fall, soil moistures may be relatively high following rain or snowmelt, but fuel moistures may take much long to respond. Many of the burn units are a mix of more open, shrub dominated areas and conifer dominated areas. To meet the desire result of creating a more diverse mix of forested and shrub/forb dominated areas, fire would be targeted more in the shrub areas than the heavily forested areas.

Within the prescribed burning treatment areas, burning would be initiated within the openings rather than the dense concentrations of trees. Although we expect some of these dense tree concentrations would burn, we plan on lighting in conditions that would affect the area with light or moderate burn temperatures. If this occurs, as we expect, the soil effects should be within or less than what we would expect in the nature range of variability for this area.

37. There was no real consideration or evaluation in the EA of the merits of suggestions made in our (Montanans for Multiple Use) scoping comments relative to the burn treatment alternatives. Failure to take a hard look at reasonable alternatives and writing NEPA documents to justify a predetermined course of action is a violation of NEPA. (D59)

FS Response: Chapter 2 of the EA includes a section labeled “Alternatives Considered but Not Given Detailed Study.” This discusses many of the comments related to the prescribed burn areas that you provided us in earlier comments.

38. The fuel/fire hazard situation post-project on land of all ownerships within the WUI must be displayed on a map. The maps provided with the EA don't show structures that would allegedly be threatened by existing fuel conditions. Based on proper mapping of current and projected conditions, please accurately disclose the threats to private structures...for all alternatives. It must be discernable why some areas are included for treatment and others are not. (D65)

FS Response: The FARSITE and FLAMMAP fire behavior models were used to display post-project potential fire behavior across all ownerships. This is included in the Project File. Individual structures are not displayed on the EA maps. This is because the purpose and need does not only apply to structures but all areas in the wildland-urban interface. The number and amount of houses is changing as development occurs.

- 39. The Forest Service missed an opportunity to make an important point in its EA. A recent scoping letter on another National Forest stated: “Homes are lost in wildfires because of two reasons: direct contact by flames or the heat from flames and from firebrands that are lofted into the air and land in a receptive fuel bed. ...it is very important that landowners address the fuels on their land and around their homes to minimize the impacts from a wildfire...” The FNF needs to reinforce this correct notion of landowner’s prime role and responsibilities in NEPA documents. (D65)**

FS Response: It is beyond the scope of this project and outside the authority of the Forest Service to dictate what landowners do to address fuels on their lands. However, the Forest Service has been involved in the North Fork Fire Mitigation efforts to provide information and answer landowner questions. The Forest Service has assisted this group in obtaining grants to reduce fuels on private properties.

- 40. Please delineate an appropriate cumulative effects analysis area for analyzing the fire risk. Finney and Cohen (2003) discuss the concept of a “fireshed involving a wide area around the community.” (D65)**

FS Response: The cumulative effects analysis area for fire/fuels is described in Chapter 3, Fire and Fuels section, in the EA.

- 41. For any given entity that would apparently have its risk of fire reduced by the proposed project – just how effective would this reduction be? The EA fails to include a thorough discussion and detailed disclosures of the current fuel situation within the fireshed within and outside the proposed treatment units in order to make conclusions about the degree to which fire behavior would be changed by the project. (D65)**

FS Response: The Fire and Fuels portion of Chapter 3 in the EA addresses fire behavior before and after treatment. It uses five fire behavior effects indicators to quantify predicted fire behavior before and after treatment with two different sets of weather inputs. The vegetation section in Chapter 3 of the EA describes forest conditions across the project area and within the treatment units. Further details are found within the silvicultural diagnosis report in the Project File.

- 42. The temporal effects (of fire) were inadequately addressed. ...how will fuels – and thus risks - change two years post-project, and 5, 10, & 20 years, simply due to average rainfall and expected vegetative responses. (D65)**

FS Response: The silvicultural analysis outlines the existing and desired conditions for vegetation within the treatment areas and across the landscape as a whole. Target stand conditions through time are described, providing such information as the forest composition and density of trees that would be maintained on the site at different periods into the future. This recognizes that the stand conditions created by our Red Whale Project fuel reduction treatments are intended to be maintained into the future, and provides some understanding of the conditions expected and desired at different times. However, any future treatments in these stands – or any

others within the project area – would require new analysis at that time and is beyond the temporal scope of this Red Whale Project.

Many factors will affect fuels in these stands in the next 20 years including, but not limited to, insect and disease, growing conditions, and fire occurrence. A future analysis could assess conditions and determine if more treatment is necessary to mitigate fuel loadings and thus risk.

43. The FS must have a detailed long-term program for maintaining the allegedly safer conditions, including how areas will be treated in the future following proposed treatments, or how areas not needing treatment now will be treated as the need arises. (D65)

FS Response: Refer to response to comment #42. In addition, any future treatments in these stands – or any others within the project area – would require new analysis at that time and is beyond the temporal scope of the Red Whale Project. Funding for any proposed future maintenance treatments would be identified as part of that analysis.

44. Rhodes (2007) states: “The transient effects of treatments on forest, coupled with the relatively low probability of higher-severity fire, makes it unlikely that fire will affect treated areas while fuel levels are reduced.” (D65)

FS Response: The Fire and Fuels portion of Chapter 3 in the EA (p. 3-47) addresses both large fire history and past fire starts in the project area (e.g. 146 known fire starts in the analysis area). Additionally, the Forest Vegetation section (p. 3-12 through 3-13) acknowledges that over 50% of the vegetation analysis area has been affected by fire since 1900. While it is impossible to know when and where future fires will occur, the past and recent fire history (i.e. Red Bench Fire in 1988, Wedge Canyon Fire in 2003) are indicators that fire could very well affect our proposed treatment areas.

45. Rhodes points out that using mechanical fuel treatments (MFT) to restore natural fire regimes must take into consideration the root causes of the alleged problem... “At best, MFT can only address symptoms of fire regime alteration. Evidence indicates that primary causes of altered fire regimes in some forests include changes in fuel character caused by the ongoing effects and legacy of land management activities. These activities include logging, post-disturbance tree planting, livestock grazing, and fire suppression. Many of these activities remain in operation over large areas. Therefore, unless treatments are accompanied by the elimination of or sharp reduction in these activities and their impacts in forests where the fire regime has been altered, MFT alone will not restore fire regimes.” (Rhodes 2007) (D65)

FS Response: The mechanical fuels reduction treatments were not designed to restore natural fire regimes and we do not claim there is an issue with the area in regards to its current fire regime. The treatments were designed to respond to the purpose and need to: lower the risk of severe and intense wildfire should a fire occur in the future (i.e., reduce the probability of a crown fire); improve our ability to initial attack and control fires; help protect human life by providing a safer environment for firefighters and the public should a fire occur; help protect

identified human and natural resource values in the event of a future wildfire; increase the diversity of tree composition to more fire tolerant species.

46. In proposing to protect private property and human health and safety from wildland fire destruction, the FNF ignored our request that the EA utilize the concept of Home Ignition Zone (HIZ) (Nowicki 2002). The FS (Cohen 1999) reviewed current scientific evidence and policy directives on the issue of fire in the wildland/urban interface and recommended the focus be on structure ignitability in the HIZ, rather than extensive wildland fuel management. (D65)

FS Response: Although this project does not identify Fuels Reduction Zones by the terminology “Home Ignition Zone,” it does incorporate this concept. The Home Ignition Zone as defined in this paper is the house itself and an area within 60 meters. By this definition, the Home Ignition Zone as it exists in the Red Whale Project is predominately private property. The Red Whale Project focuses on reducing fuels on Flathead National Forest lands near private property.

His paper also states, “additional thinning beyond the home ignition zone may enhance the ability of firefighters to safely defend community space. Creating an area of reduced fuels immediately adjacent to the community can provide options for firefighters to control fire in this space, and can provide a safety zone – an area where firefighters are free from danger, risk, or injury.” By treating fuels within this area, called the Community Protection Zone in this paper, the purposes of the project are addressed. These include lowering the risk of severe and intense wildfire should a fire occur in the future, improving our ability to initial attack and control fires by modifying fire behavior with fuels reduction zones, and protecting human life by providing a safer environment for firefighters and the public should a fire occur.

47. Please discuss the research of Cohen (1999) as it applies to the Red Whale Project. (D65)

FS Response: Cohen (1999) primarily discusses reducing the risk of home ignition by treating fuels immediately adjacent to homes. While some of the proposed fuel reduction in this project would meet the criteria discussed in this research, most treatment areas are intended to influence wildland fire effects on other resources and social values identified by the community, improve our ability to initial attack and control fire, and provide a safer environment for firefighters and the public should a fire occur.

48. Finney and Cohen (2003) state “A number of false or exaggerated expectations are endemic to the general public and fire management organizations alike. Some of these are:

- a. Adding more firefighting resources will reduce acres burned.
- b. Structures and homes will be protected by firefighting resources.
- c. Wildland fuel management prevents structure loss.
- d. Fuel treatments will stop wildland fires.
- e. Fuel management can be equally successful for all vegetation and fire regimes. (D65)

FS Response: The purpose and need related to fuels in the Red Whale Project does not include any of the above statements. Statement b. is similar to our purpose statement, “Help protect identified human and natural resource values in the event of a future wildfire.” Our statement does not say they will be protected, it says that portions of the project will be designed to help protect these features.

49. Finney and Cohen (2003) point out the need to more fully analyze spatial landscape fuel arrangements. Some means of spatially organizing treatment units must be considered in order to accomplish the landscape level goals for fuel management. Likewise, they point out that landscape-level fuel reduction has negative consequences as well as positive, which the project NEPA analysis must disclose and analyze. (D65)

Response: Fuel treatments have been strategically located within the project area to focus on lands closest to private property while minimizing resource impacts. Treatment areas were also carefully located to take advantage of existing roads, areas of light fuels, natural barriers to fire, and previous treatment areas. An assessment of effects of these strategic fuel treatments were displayed in the EA as they related to tradeoffs with values associated with wildlife, soils, watershed, recreation, economics, etc.

50. In the areas beyond the HIZ, we are very much concerned that the FS believes that logging and Rx fire will address a ‘healthy forest’ issue. (D65)

FS Response: Although one of the purposes of this project is to reduce forest fuels within the wildland-urban interface and does not specifically include a “healthy forest” objective, the EA (p. 3-33) does acknowledge that thinning would improve the vigor and growth of leave trees. This would promote the development of larger and healthier trees to make them more resistant to insect, disease, fire, etc.

51. We request the FS adopt the Forest Restoration Assessment Principles found within the Forest Restoration Principles and Criteria (DellaSala, et al. 2003) as a screen for all proposed actions outside the HIZ. (D65)

FS Response: The purpose of this project is to lower the risk of future high intensity fire and to improve the ability to attack fires safely, not to restore the ecosystem in the manner that this paper suggests. Please refer to the response to comment #46 regarding HIZ and treatments beyond this area.

52. Given the scientific literature presented, please explain why any of the proposed FS actions reach outside of the home ignition zone. (D65)

FS Response: Please refer to the response to comment #46.

53. Cohen and Butler (2005) note ...We cannot mitigate a highly vulnerable HIZ with fuel reduction activities beyond the HIZ; a highly vulnerable HIZ remains highly vulnerable even when surrounded by fuel break. (D65)

FS Response: Much of the HIZ in the Red Whale Project area is private land. Many private landowners have performed or plan to complete fuels reduction treatments on their properties. Fuels reduction treatments are not designed to mitigate a highly vulnerable HIZ, they are designed to respond to the purpose and need of this project.

54. To the degree that this proposal focuses on dead and dying trees, it is not about reducing crown fires. Cohen and Butler (2005) note that dead trees that have lost their needles pose minimal crown fire risk.... (D65)

FS Response: The fuels reduction activities proposed for the Red Whale Project are in forest stands that are green and not believed to be in imminent danger of suffering high mortality from insects or disease pathogens. Some dead and dying trees may be removed as part of the fuel reduction actions, but they are not particularly targeted for removal. Consideration will be given to retention of any desirable wildlife snags.

55. Please consider that thinning can result in faster fire spread than in the unthinned stand. (D65)

FS Response: Rate of spread is only one measure of the intensity of a wildland fire; a faster rate of spread does not necessarily result in a greater risk of a high severity crown fire occurring. When a forested stand density is reduced through removal of trees, the potential mid-flame wind speeds increase. This was considered and adjusted when estimating fire behavior in post fuel reduction treatment areas. The thinning included in this project will be accompanied by surface fuel reduction.

56. Please reconcile the differences in the scientific literature and your Fuel Treatment Principles presented in Table 3-14 of the EA. Please point out the scientific literature that was used to conclude that decreasing crown density will make tree to tree crown fire less likely. (D65)

FS Response: The Graham paper you referred to explains that selection thinning and crown thinning that maintains multiple crown layers, along with individual tree selection systems, will not reduce the risk of crown fires except in the driest ponderosa pine forests. The paper explains crown thinning as thinning from above that maintains vertical structure. Selection thinning is described as removing dominant trees to favor smaller trees. These two methods Graham discusses are not those proposed for silvicultural/fuels reduction treatments in the Red Whale Project. The explanation in Chapter 3 following Table 3-14 states that thinning would primarily focus on removing the smaller trees and species that are less resistant to fire, leaving larger, fire resistant species where possible. By removing the understory trees it would increase the canopy base height, making it more difficult for a crown fire to be initiated. Throughout the Forest Vegetation portion of Chapter 3, proposed thinning discusses leaving the healthy, larger trees in most areas. Many of the treatments proposed in this project fit the description of Low Thinning in Graham's paper. The scientific literature primarily used to conclude that decreasing crown density would make tree-to-tree crown fire less likely include the following:

Scott, Joe H.; Reinhardt, Elizabeth D. 2001. Assessing crown fire potential by linking models of surface and crown fire behavior. Res. Pap. RMRS-RP-29. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 59 p.

Scott, Joe; Reinhardt, Elizabeth. 2001. [Computer program]. NEXUS. Missoula, MT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Systems for Environmental Management.

57. Hessburg and Lemkuhl (1999) suggest that prescribed burning alone can be utilized in many cases - possibly here - where managers typically assume mechanical fuel reductions must be used. Given the fact that action alternative 4 proposed prescribed burning in the WUI, please explain why prescribed fire cannot be used for all the proposed treatments in the WUI. (D65)

FS Response: The paper cited above suggests that a “burning only” approach to fuel reduction would not be as successful nor as precise as an approach that included silvicultural treatments such as are proposed for Red Whale. Prescribed burning is always considered as a tool for achieving the desired future condition; however, prescribed burning in the current forest conditions proximal to private lands/homes in the Red Whale area was determined by the district fuels specialist to pose an unacceptable risk in most areas. Mechanical fuel reduction was determined to be the most effective, efficient, and safe method for meeting the purpose and need of the project in most units. Prescribed burn Unit 9 that is included in Alternative 4 was the exception. This unit is in the wildland urban interface and in close proximity to private land. It was not only included for fuels reduction but also to improve wildlife habitat. Prescribed burning in this unit was chosen instead of mechanical treatment for several reasons. The slope and proximity to the stream would make equipment use undesirable. The risk of escape would also be mitigated by the narrow design of the unit (reducing the potential of large, upslope, high intensity fire runs) and by performing mechanical fuels treatments between the prescribed burn unit 9 and the private land (Units BB, CC, DD, EE, FF, and GG).

58. Please explain how the proposed Rx fire units that supposedly reduce fuels can be so far away from homes and private land. If the FS uses fuel reduction as the rationale for Rx fires, how did they determine that the proposed distance is acceptable? (D65)

FS Response: The prescribed fire units are primarily designed to respond to a need under Wildlife Habitat and Security. Chapter 1 of the Red Whale Project EA states that the project will be designed to: use prescribed fire to create favorable growing conditions for forbs, shrubs, and grasses and improve habitat quality for a variety of wildlife species. These units may have a secondary effect of reducing fuels, however they were not designed as primary fuels reduction units. The exception to this is prescribed burn Unit 9 in Alternative 4. This unit is adjacent to private land and designed to respond to the wildlife needs as well as fuels reduction needs. Also, please see response to comment #57.

59. Since fire exclusion is identified as a culprit, the FNF needs to take a hard look at its fire policies...Continued mismanagement of National Forest lands and FS refusal to

fully implement the Fire Policy puts wildland firefighters at risk if and when they are dispatched to wildfires. This is a programmatic issue, one that the current Forest Plan does not adequately consider. (D65)

FS Response: Thank you for your comment. These issues are beyond the scope of this project.

60. Hayward, 1994, calls into question the entire mechanical manipulation/prescribed burning regime. The managed portion of the FNF has been fundamentally changed, so the FS must consider how much forest has been fundamentally changed compared to historic conditions forestwide before pursuing “treating” it anywhere. (D65)

FS Response: The main purpose of the Red Whale project regarding vegetation management is quite focused - to lower the risk of future high intensity fire and to improve the ability to safely attack fires. It also includes prescribed burning for wildlife purposes. The primary fuel reduction treatments are focused on areas immediately adjacent to or in close proximity to private lands. Altering the condition of vegetation and/or fire behavior at the larger landscape scale is not an objective or desire of this project. Current and historical vegetation conditions and fire return intervals have been evaluated for the project area and documented in the Project File. Conditions for these resources are considered within the historical range of variability. Forest and watershed-level vegetation analyses were referred to for this analysis and determination (refer to Vegetation effects analysis document in the Project File), as well as evaluation of the fire regime, fire history and condition classes (refer to Fire/Fuels analysis in the Project File).

Consideration of resource conditions Forest-wide is a part of the overall process the Forest Service uses to identify areas where active management may be desired. The Flathead National Forest Land and Resource Management Plan (Forest Plan) direction provides some guidance in this area, as well as comments from and collaboration with individuals and members of the public. This step occurs prior to development of a site-specific proposal and initiation of the environmental analysis conducted under the auspices of the National Environmental Policy Act (NEPA).

Fisheries

61. I urge you to decommission the roads you intend to berm shut, removing their culverts to better protect ...fish...(D33, 36, 37, 39, 46, 48, 49, 51, 52, 54, 55, 56, 60, 62, 67)

FS Response: Water quality and fish habitat were considered during the design phase of the project. All roads planned for berms were surveyed to determine the existing condition of culverts and other drainage structures. Any culvert determined to pose a high-risk for failure will be removed or replaced with a larger capacity culvert. In addition, there will be periodic maintenance of these culverts to help reduce the potential for failure. Water quality and fish habitat are expected to be maintained by removing/upsizing culverts as needed and by future monitoring.

62. Bull trout spawning streams in the project area already have high sediment levels...These streams are at the threshold for impairment, yet only Alternative 3 appears to remove culverts and not replace them. (D61)

FS Response: Sediment levels as determined by McNeil core samples can be found in Chapter 3 of the EA (p. 3-226) and in the Fisheries section of the Project File. No streams within the analysis area are at the impaired level identified as greater than 40% fines less than 6.25 mm in diameter under the Flathead National Forest Land and Resource Management Plan.

63. By allowing culverts to be removed and then replaced in Alternatives 2 & 4, the Flathead is not providing a long-term benefit to fish habitat. We realize that removing culverts results in a short-term pulse of sediment, however once that culvert is properly removed no maintenance is needed. (D61)

FS Response: That is correct; no maintenance is required once a culvert is removed. However, if a culvert is replaced with one that is adequately sized and provides fish passage, it requires little maintenance. Although this may not be as fish friendly as a removal, it will be an improvement over the present condition. Some culverts will also be removed and not replaced in these alternatives, just not as many in Alternative 3. See response to comment #61.

64. For the most part, this project is maintaining conditions that keep these streams “functioning at risk.” (D61)

FS Response: The bull trout matrix uses multiple parameters to determine if populations are at risk. Sediment levels are often the limiting factor in bull trout production in addition to downstream impacts of non-native fish in Flathead Lake. Risk levels associated with sediment levels should decrease in the long term with culvert removals in Red Meadow Creek. A primary determinant in sediment levels is drought, which is beyond our control.

65. The FS must not misplace the threats to clean water onto vegetative conditions instead of correctly identifying the true threats to watershed health. The Western Montana Level I Bull Trout Team (Riggers et al., 2001) state: The real risk to fisheries is not the direct effects of fire itself, but rather the existing condition of our watersheds, fish communities, and stream networks, and the impacts we impart as a result of fighting fires. Therefore, attempting to reduce fire risk as a way to reduce risks to native fish populations is really subverting the issue. If we are sincere about wanting to reduce risks to fisheries associated with future fires, we ought to be removing barriers, reducing road densities, reducing exotic fish populations, and re-assessing how we fight fires. At the same time, we should recognize the vital role that fires play in stream systems, and attempt to get to a point where we can let fire play a more natural role in these ecosystems. The biologists emphasize, “the importance of wildfire, including large-scale, intense wildfire, in creating and maintaining stream systems and stream habitat.” The biologists continue “in most cases, proposed projects that involve large-scale thinning, construction of large fuel breaks, or salvage logging as tools to reduce

fuel loading with the intent of reducing negative effects to watersheds and the aquatic system are largely unsubstantiated.” The biologists point out that logging, thinning and fire suppression can have harmful effects on watersheds (Id.). We ask that the FS explicitly consider Riggers et al., 2001 in the subsequent NEPA analysis. (D65)

FS Response: Wildland fire typically has a positive effect upon fisheries except in rare cases when high intensity rain events result in severe erosion. Effects from thinning are highly variable from "no effect" to a "not likely to adversely affect" depending upon the planning and implementation of the thinning. This project was designed in a manner to minimize effects upon fisheries by avoiding riparian areas and staying out of important fishery watersheds. Activities such as winter logging, implementation of Best Management Practices, and reclamation of temporary roads would further minimize effects.

66. The project will harm bull trout and westslope cutthroat trout habitat. I urge the Forest Service to develop the project with native wildlife and fish as the priority. (D66)

FS Response: The Biological Assessment for this project determined that bull trout and westslope cutthroat trout will “not likely adversely affected.” This project was designed to minimize effects to bull trout by not having any road construction or harvest units above bull trout spawning areas.

67. The EA indicates that no fire ignition for prescribed burns will occur within INFISH buffers, but I do not see a discussion about how to prevent a prescribed burn ignited elsewhere from moving within the INFISH boundaries or if/how the area would be remediated if a fire migrates within the INFISH buffers. (D44)

FS Response: The burns would be ignited 300’ or greater above streams. Fire runs uphill and in an uncontrolled situation backs slowly downhill. Pumps would be used to prevent fire from backing downhill into INFISH buffers in this controlled situation. If fire does accidentally become established in buffers and trees, burn restoration would likely not be needed as it would not be a hot burn due to the time of year that prescribed burns occur. If it were a hot burn, grass seed and wattles would be used to minimize erosion into the stream.

Hydrology

68. ...I urge you to decommission the roads you intend to berm shut, removing their culverts to better protect water quality... (D33, 36, 37, 39, 46, 48, 49, 51, 52, 54, 55, 56, 60, 62, 67)

FS Response: Please refer to the response to comment #61.

69. Alt. 3...increases water yield the least... (D34)

FS Response: Alternative 3 increases the water yield the least of the three action alternatives. However, as described in the Hydrology section of the EA water yield increase is not a major concern for any of the alternatives. All of the alternatives would see a water yield increase post-implementation within the natural range of water yield increase that occurs in area watersheds.

70. Moreover, we urge the GVRD to forego the easily breached berm method of road closure in favor of more ecologically beneficial approaches focusing on restoring more natural hydrological patterns. (D40)

FS Response: Please refer to the response to comment #61.

Miscellaneous

71. I strongly urge the Forest Service to consider Amendment 19 and Alternative Three in its Red Whale Project. (D32)

FS Response: Thank you for your comments. The effects analysis described in the EA and the comments received on the EA will be considered by the decision maker. The effects analysis in the EA as well as the information in the Project File includes detailed information relative to effects to grizzly bear habitat and access conditions within the project area and across the Flathead National Forest.

72. We urge you to pursue alternatives that meet Forest plan standards, particularly Amendment 19 standards, leave old-growth alone, and avoid “treating” suitable lynx habitat. Alt. 3 is the only alternative you have studied in this regard. We urge you to develop and study other action alternatives that meet Forest Plan standards and further reduce impacts to forest resources. It is not sufficient to have only one alternative that meets Forest Plan standards. For example, you must develop and assess an alternative that increases grizzly bear security core by reclaiming roads as preferred under Amendment 19, not just by berming them shut... The EA contains an inadequate range of action alternatives, with only one (Alt. 3) that on its face complies with Forest Plan standards and is in that regard legal. NEPA requires that all action alternatives be reasonable and legal. (D34)

FS Response: All action alternatives are consistent with Forest Plan direction. None of the action alternatives would treat old growth and treating “suitable” lynx habitat within the wildland–urban interface is allowable under the Northern Rockies Lynx Management Direction Record of Decision that recently amended lynx management direction in the Flathead National Forest Land and Resource Management Plan.

Security core can be increased by decommissioning or berming roads. All action alternatives increase security core. Alternative 2 increases security core by berming one road (Road 1681 - Benchmark) and closing several trails to wheeled motorized vehicles. Alternative 3 increases security core by berming three roads (Road 1681 – Benchmark, Road 376 plus spurs – Hay Creek, and Road 5241 – Moran Creek) and closing several trails to wheeled motorized vehicles. Alternative 4 increases security core by berming two roads (Road 1681 – Benchmark and Road

5241 – Moran Creek) and closing several trails to wheeled motorized vehicles. These roads would either have high risk culverts removed or replaced (EA, p. 2-49 and 2-50).

73. The EA, at 1-5, abandons Forest Plan standards as desired future conditions and instead morphs them into a “desired situation” defined as an arbitrary level of improvement over current substandard conditions. (D34)

FS Response: The EA on page 1-5 is discussing the purpose and need of the Red Whale Project related to wildlife habitat and security. The EA does not include any language that includes abandoning Flathead National Forest Land and Resource Management Plan standards.

**74. The EA contains an inadequate range of action alternatives. (D34)
You have failed to examine a reasonable wide range of alternatives. (D59)**

FS Response: The Red Whale EA considered four alternatives, including the No Action Alternative (Alternative 1) which must be considered. In addition to the No Action Alternative, we analyzed the Proposed Action Alternative (Alternative 2) and two additional alternatives. Alternatives 3 and 4 were designed to address issues of public concern as evidenced in comments we received from the scoping notice. Specifically, Alternative 3 was developed to immediately achieve provisions of Amendment 19 management direction, and Alternative 4 was designed to meet the need for increased connectivity of fuel reduction units, by treating more units.

75. Not complying with Forest Plan standards is a violation of the NFMA and, in the case of A19 standards a violation of the ESA. The EA proposes no project-specific amendments to these standards and, even if it did, is inadequate to support them. (D34)

FS Response: The Flathead National Forest Land and Resource Management Plan (Forest Plan) provides long-term management direction and so individual projects implementing the Forest Plan are designed to move towards the desired conditions described in the Forest Plan. The action alternatives are consistent with achieving Forest Plan direction and desired conditions. Project specific amendments are not required when alternatives are consistent with Forest Plan direction.

76. An EIS is required, especially given the cumulative nature of the Forest Service’s failure to only propose and implement decisions that comply with the Forest Plan. (D34)

FS Response: The direct, indirect, and cumulative effects associated with the selected alternative and described in the EA have been determined to be non-significant (see Finding of No Significant Impact). The selected alternative has been determined to be consistent with Forest Plan direction. Therefore, an EIS is not required.

77. What will happen to Amendment 19 when the new Forest Plan is signed? (D35)

FS Response: The form that Amendment 19 will take in the new Forest Plan is beyond the scope of the Red Whale Project. The Flathead National Forest commitment to provide habitat conditions that contribute to the recovery of grizzly bears in the NCDE will remain the same as it has been for the past 20 years. It is important to note that the management direction the Flathead National Forest has been undertaking is likely to have contributed to the stable and perhaps increasing number of grizzly bears in several areas of the recovery zone.

78. To reject harvest by helicopter without the requisite ‘hard look’ or any kind of analysis is inherently arbitrary and capricious and in fact may be a sound basis for litigation. It may be that heli-units would provide sufficient volume at a high enough price to pay for the other ancillaries, while further opening the canopies on steep ground more vulnerable to intense fire and post-fire erosion events. (D58)

FS Response: Logging the units prior to burning was considered in an alternative that was not given detailed study. Upon consideration of each of these units, it was determined that all units were in either an Inventoried Roadless Area (IRA) or a Management Area (MA) unsuitable for timber management. Units 1, 2, 3, and 8 are in an IRA; Unit 7 is in MA 3 (other amenities emphasized); Unit 9 is in MA 12 (riparian); and Units 4, 5, and 6 are partially in an IRA and partially in MA 11 (grizzly bear management). These units did not meet the requirement for logging in an IRA, nor did they meet the requirement to protect, maintain, and enhance the resource values associated with their Management Area designation, which is required prior to harvest. Please refer to the EA, Chapter 2, Section V, “Alternatives Considered but not Given Detailed Study” for more information about this alternative and the rationale for eliminating it from detailed study. Also, please see response to comment #95.

79. You allegedly considered an alternative to examine removal of commercial timber as a preparatory treatment prior to burning hundreds of acres that you admit have commercial timber in excess of land management objectives. We find that your arguments not to consider this alternative in detail arbitrary and capricious. (D59)

FS Response: Please see the response to #78 above, and refer to the EA, Chapter 2, Section V, “Alternatives Considered but not Given Detailed Study” for more information about this alternative and the rationale for eliminating it from detailed study.

80. In the Lower Whale subunit, all alternatives are deemed sufficient because they meet the *amended* A-19 standards in the Robert-Wedge project. The Robert-Wedge project specific amendments and the A-19 BiOp are being litigated, so the Flathead should be trying to comply with A19 in the Lower Whale subunit. (D61)

FS Response: Alternatives were developed to respond to the purpose and need for the Red Whale Project and to meet Forest Plan direction. All alternatives are consistent with this framework.

81. Any alternative selected must fully comply with the Forest Plan. (D61)

FS Response: Thank you for your comment. The Forest Plan sets long-term goals and objectives. The Forest Plan does not require that any single project immediately achieve all objectives of the

Forest plan. The interpretation of “fully complying” is likely the point of disagreement. An alternative that is designed to improve habitat conditions over current conditions, and therefore contributes to the objectives of the Forest Plan, is in compliance with the Forest Plan.

**82. I support Alternative 4 for most acres treated and least miles of road closed. (D63)
We support Alternatives 2 and 4...we do not support Alternative 1 or 3. (D64) My
personal preference is Alternative 2... (D57) I support action alternative 4 (D68).**

FS Response: Thank you for your comments.

83. The Flathead National Forest has engaged in ongoing arbitrary, capricious and biased changes in the rules you use to calculate the A-19 parameters, always resulting in more road closures. Such biased manipulation of your system to implement a preservation agenda not only inflicts harm on the resources and the public, there are no verifiable benefits to bears. The process you use to justify these closures and the decision to implement the closures violates the Organic Act, the Administrative Procedures Act, the Multiple Use Sustained Yield Act, the National Forest Management Act and the National Environmental Policy Act. (D59)

FS Response: The implication of a preservation agenda by the Flathead National Forest is invalid and misplaced. The procedures and decisions guiding our land management are consistent with the laws you mention. It is important to note that the A19 direction was a result of the Ninth Circuit Court determining that the Flathead National Forest “acted arbitrarily and capriciously in concluding, on the record as a whole, that the Plan would not jeopardize listed species...”

84. Please develop and implement an alternative that includes no additional yearlong or seasonal closures to motorized use, treats all Federal land for .25 to 1.5 miles along west boundaries of State and private land, and that takes a hard look at salvaging commercial timber in the proposed burn areas. This type of alternative, verified by best available science, is a reasonable alternative we (Montanans for Multiple Use) requested in our scoping comments. (D59)

FS Response: We did include an alternative (Alternative 4) in the EA that expanded fuels treatments beyond what was included in the proposed action (Alternative 2 in the EA). However, we did not propose to treat all federal lands within the WUI (the area you are referring to) for a variety of reasons including lack of a fuels concern, wildlife cover or forage (lynx) concerns, riparian areas, access issues and other resource reasons.

As far as keeping motorized access to public lands the same as is now, Alternative 1 does propose this. It is possible for the decision maker to decide to include certain components within each of the alternatives in their final decision for this project. However, keep in mind that part of the purpose of the project was to improve security to grizzly bears by reducing wheeled motorized use. Alternative 1 would not meet this purpose.

As for your request for a look at salvaging commercial timber in the proposed burn areas, please refer to our response to comments #78 and #95.

85. I support Alternative 1, or creation of a fifth alternative that expands the scope of Red Whale to the point where it is not a burden on the taxpayer and will allow access to public lands. (D58)

FS Response: We did include an alternative (Alternative 4) that proposed to treat more areas within the WUI than what was originally included in the proposed action (Alternative 2). However, we did not propose to treat all federal lands within these areas for many reasons (see response to comment #84).

Recreation

86. He does not want to see motorized trails closed in the North Fork...He does not want motorized trail recreation to be reduced or minimized by the Red Whale Project. (D35)

FS Response: Restrictions affecting motorized access proposed in the Red Whale Project are intended to improve security for grizzly bears. The effects of trail closures as assessed in the EA (including effects to wildlife, and motorized and non-motorized recreational users) will be used by the decision maker, along with public comments, when making a decision for this project.

87. Please do not cater to the very small but noisy minority who want to run their noxious snowmobiles and ORVs anywhere they want whenever they want spewing their snarl and cancerous fumes to the detriment of those of us that try to breathe and live in this valley. (D50)

FS Response: Thank you for your comment.

88. My interest in this project is mostly from a recreational (hiking) standpoint in the Coal Ridge area. Here is what I think needs to be preserved: Trail #239..., Coal Ridge Cabin..., Coal Ridge Lookout..., Moran Creek Trail #2. The first few miles of Hay Creek Road and the remaining 4-mile segment of Moran Creek Road would need to be kept open to preserve the trailhead of Trail #2. (D57)

FS Response: The Coal Ridge area is accessed by Moran Creek Road #5241 and the upper portions of Coal Creek Road #317B (Coal Creek Road is not included within the Red Whale project area and therefore there is no proposal changing its travel status). In some alternatives (like Alternative 3 and 4), Moran Creek Road would be closed to motorized use which would result in longer access by hikers/bicycles/stock to get to Trail #2, Trail #239, Coal Ridge Cabin and Coal Ridge Lookout (as you mentioned, 4 more miles would be added). Other alternatives do not include these closures so that benefits and tradeoffs can be compared. Based upon this analysis in the EA as well as public comments, the decision maker will try to come to a balanced decision – one that helps improve security for bears while trying to preserve some of the existing recreational use within the area.

89. If it is essential to close Moran Creek Road, the Moran Creek approaches to the lookout or cabin would increase to 7 miles each way, and make them much less attractive day hikes. Access to Coal Ridge Lookout from the east could be retained by restoring Trail #4 from Cyclone Lookout Road #909 and another short segment of Trail #14...All of these distances would be significantly shorter than those available if the Moran Creek trailhead is moved out to Hay Creek Road. (D57)

FS Response: The recreation analysis found in the EA describes the potential change if Moran Creek Trail #2 (currently a comfortable day hike) were to become an overnight experience due to Moran Creek Road #5241 being closed to wheeled motorized travel. One thing to note - Trail #4 is no longer a system trail and adding it back to the system was not analyzed in the scope of this project. In the future, the district may choose to assess the overall trail system and determine the functionality, use patterns, access, and feasibility for maintenance.

90. I hope the Forest Service will preserve reasonable means for recreationists to access the interesting historical structures, solitude and breath-taking views available along Coal Ridge. (D57)

FS Response: Refer to the response to comment #88.

91. Further closures of recreational access such as Coal Ridge Trail and Hay Creek puts the agency at risk of losing what remains of rapidly waning support of the general user public for continued funding for any purpose... (D58)

FS Response: Refer to the response to comment #86.

92. Once again, threatened species are taking a back seat to motorized recreation. Culverts are being left on bermed roads to facilitate snowmobile access. (D61)

FS Response: Refer to the response to comment #86.

93. Please direct ORV traffic to lands with no important value to wildlife. Help educate user groups on this issue, so that they can participate responsibly. (D67)

FS Response: Refer to the response to comment #86. Additionally, the district is actively working with local motorized groups to promote responsible Off-Highway Vehicle recreation.

94. ...while I'm in general for more road closures, changing an already yearlong gated road into a road closed with a berm raises another issue. Some of us like to use gated roads on mountain bikes and as long as they are just gated they are perfect trails to ride. Once you remove culverts and use berms instead of gates, the road becomes an unpleasant obstacle course. (D63)

FS Response: One, three, or two roads would change from a gate to berm in Alternatives 2, 3, and 4, respectively. Some culverts may be removed from these roads (depending on if they are

considered high risk of failing – other culverts may be upsized) which could cause impediments to some on mountain bikes and may not to others.

Roadless

95. Contrary to your arbitrary and capricious statement that “Logging within these units does not appear to meet any of these conditions”, we find tree removals in the inventoried roadless portions of proposed burn units meet three of the five criteria that permit salvage:

- **‘To improve habitat for listed or proposed threatened and endangered species, or for sensitive species.’**
 - a. **the purpose of the treatment is to improve habitat for grizzly bear and ungulates because excess tree growth has reduced forage production...**
 - b. **killing and weakening trees by burning will ensure they will provide optimal breeding habitat for bark beetles...**
 - c. **fallen trees create significant heavy ground fuels for future soil damaging re-burns in addition to the barriers downed jack-strawed timber will present for ungulate utilization of forage.**

- **‘To maintain or restore the desirable characteristics of ecosystem composition and structure, for example to reduce the risk of uncharacteristic wildfire effects.’**
 - a. **removal of excess commercial trees meets this condition...if you don’t remove the un-natural accumulation of excess trees, you will not meet future ‘desirable characteristics of ecosystem composition and structure’ because of the excess large down wood.**

- **‘The cutting, sale or removal of timber is incidental to the implementation of a management activity and not otherwise prohibited under the land and resource management plan.’**
 - a. **Tree removal in this project is incidental and beneficial to the primary management activity of improving forage and reducing fire hazard. (D59)**

FS Response: As mentioned in the EA (p. 2-52), there is a combination of reasons why helicopter logging was not considered for the burn units, and it was the cumulative effect of these reasons that led to the decision to not fully evaluate this alternative. The areas within the burn units are classified as fire regime III, with a historical fire frequency of 35-100+ years, and mixed severity fires are most common (EA pg 3-45). Overall, the Red Whale Project area is considered in a relatively healthy ecological condition, with fire returns and vegetative conditions within the range of historical variability (EA pg 3-47 and 3-28, 29), although there are a few areas on southern aspects within the burn units that are considered at or near a point where they may be exceeding their historic fire return interval (EA pg 3-47). Applying low/mixed severity fire to these units would remedy this in the most natural way possible through active management. Conditions are not yet so far removed from their natural range of variability that they have an “un-natural accumulation of excess trees,” and applying fire is not expected to create an unnatural accumulation of dead/downed trees. Harvesting trees prior to burning would alter the post treatment stand conditions by removing trees that - if they survive - would become

the future live large tree stand component, and – if they die – would provide snag and downed wood habitat for wildlife and soils benefits. It would take quite a large, contiguous area of heavy, jack-strawed downed trees to seriously impede movement of wildlife, particularly bears. The planned burn intensity and target vegetation condition is not intended to create this kind of condition.

Current policy limits harvest in Inventoried Roadless Areas to trees of small diameter. Most of the trees in the burn units are in the younger, smaller diameter age classes, except for about 250 acres in Units 4, 5 and 6, where there are larger trees (however, removal of these trees would not be allowed). Stand density is diverse, and varies across the burn units, from very open areas to dense patches. To create economically viable helicopter units, a substantial proportion of the smaller diameter trees would need to be removed from the units. None of the burn units are within management areas suitable for timber management (under Forest Plan direction), and removal of trees is only allowed when the resource values associated with the designation are improved and/or protected (which include grizzly bear and other threatened and endangered species, sensitive species habitat, riparian values, and old growth). As described in the preceding paragraph, removal of even moderate numbers of trees is not necessarily considered an enhancement for the grizzly bear, sensitive species, or other wildlife associated with these kinds of habitat, considering the current diverse conditions of the stands and the objectives of the treatments. In addition, the amount of slash that would be created by such a harvest would likely alter the intensity of burn that occurred on the site, and may not represent a “natural” burn. Forage enhancement and creation of vegetative conditions that are within a desired historical range could be achieved through burning alone, and the quantity of snags that would be created would be a benefit to many species (black backed woodpeckers for one), as well as soils.

96. I have worked on the Flathead doing decommissioning work and I believe its time we really started considering why we are making roadless areas. (D42)

FS Response: Thank you for your comment. Roadless area designations are beyond the scope of this project.

97. I have worked in this area and the only time I’ve ever seen grizzly bears is near the roads and people. The whole roadless idea is not sound. (D42)

FS Response: We are not proposing to make roadless areas.

98. The EA does not include a map that clarifies roadless boundary issues...What roadless areas will be affected by the proposed treatments and how will this affect their possibility of being considered for wilderness status? (D65)

FS Response: Re-evaluating the boundary of the inventory roadless area is outside the scope of the Red Whale Project. There are several inventoried roadless areas (IRA) within the project area and have been identified as such within the EA (a map is found on page 3-302). The only proposed activities included within these IRAs are some of the proposed prescribed burning units. The effects of these burn units are assessed on pages 3-303 through 3-305 in the EA.

Additionally, on page 3-305 is a sentence that says that these burn units are not expected to change the suitability of the Thompson-Seton and Mt Hefty IRAs in becoming wilderness.

Silviculture

99. Without proper management of the timber, there is a greater possibility of losing the forest to more fire and/or disease. (D31)

FS Response: This may be true, depending upon the existing condition of the forest and the type of management proposed. The effects of the proposed treatments on insect, disease, and fire risk have been evaluated in the Environmental Assessment.

100. Alt. 3 treats no old growth forest stands, while the others do. (D34)

FS Response: The exact status and location of all likely old growth forest was not known at the time of alternative development. Field review and data evaluation during the project development confirmed the location of old growth. Disclosure of these areas occurred in the EA, as well as the resulting effects of the alternatives on old growth. As stated in Chapter 2 of the EA (pg 2-47), the intent of the decision is to avoid directly impacting old growth forest; therefore any old growth units or portions of units in old growth would not be included in the final decision.

101. You describe 70-90 yr old trees with some concentrations of larger overstory trees as “not likely” to support a viable helicopter logging operation. There was no effort to determine the approximate volume and value per acre and number of acres, even from photo stand mapping that can be compared with similar stands having inventory information available. There was no consideration of any logging systems other than helicopter. (D59)

FS Response: The assessment of the viability of treating the prescribed burn units as disclosed in Chapter 2 of the EA (pg 2-52) makes clear that it is as much a land designation issue as it is a forest condition/size/age class that limits helicopter logging viability. Most of the burn areas are within Inventoried Roadless Areas, and do not meet any of the conditions for logging within Roadless Areas, as established by Forest Service policy. All the other burn units are within Forest Plan management areas that are unsuitable for timber management, and it was considered unlikely that logging of live (or dead) overstory trees could meet the requirements of these management areas. About 150 acres within Units 4, 5 and 6, that lay outside the Inventoried Roadless Area were considered most likely to contain forest conditions that might support timber harvest. 1983 surveys indicated that there were large trees and high total volume and, in fact, many of these stands would have qualified as old growth forest in 1983. However, in the 25 years since the exams, there has been considerable loss of overstory Douglas-fir (which is the dominant species by far in these stands) to Douglas-fir beetle, mostly in the past 7 to 8 years. These units are within the Trail Creek Grizzly Bear Management Area also, which is in the unsuitable timber base. In addition, these units will probably be dropped from the selected

alternative due to the likelihood of old growth habitat. For more discussion, please also refer to the response to comment #95.

In regards to the use of other logging systems besides helicopter, the terrain and lack of road access makes any other logging system not technically feasible.

- 102. There is no reason why portions of the treatment areas could not be treated using conventional logging...in the winter using snow roads. This would be much more economical than helicopters and the ground fuels could be manipulated to meet burning prescriptions to protect soil from excess heat damage and erosion. (59)**

FS Response: The terrain is very steep and road access is limited to non-existent for the burn units. See also response to comment #101 and #95.

- 103. Stand Group 1 treatments call for planting. Too many trees are the problem on all the areas...Planting should not be necessary unless there is a lack of larch and Douglas-fir seed source within and adjacent to the treatment areas. (D59)**

FS Response: Planting would occur only where a treatment area is not expected to regenerate naturally to larch or Douglas-fir, the desired long-term species. Exams immediately after the thinning treatment would help to confirm where planting would occur. Trees would probably be planted on a 12x or 15x spacing. Not all would survive, and it is expected that lodgepole pine would regenerate abundantly on its own. Future thinning would be done to maintain the desired tree density and continue to meet fuel reduction objectives.

- 104. Alternatives 2 & 4 log in old-growth forest habitat. Old growth is a scarce resource, no logging should occur in old growth. (D61)**

FS Response: As stated in Chapter 2 of the EA (pg 2-47), the intent of the decision is to avoid directly impacting old growth forest; therefore any old growth units or portions of units in old growth would not be included in the final decision. See response to comment #100.

- 105. Stand Group 3 treatments call for a light understory thinning leaving an overstory of 110 to 140 trees. That many mature trees will carry a crown fire relatively easily... Inadequate crown opening in mature stands will permit a running crown fire to keep on going. We recommend that the mature overstory be thinned also, especially concentrating on removal of the lodgepole pine, plus removal of the crown fire and windthrow prone spruce and subalpine fire along with enough Douglas-fir to ensure that crowns are separated. Reducing mature tree crowns to 50-70 trees/acre will produce a crown fire resistant stand structure that will be effective for several decades and the remaining trees will be more insect and disease resistant. (D59)**

FS Response: Due to refinement of stand types and the exclusion of some areas within the units, in the final Decision there are only 28 acres of stand group 3 that would be treated. About half of this area (Unit I1, I2, and I3) is within a spruce dominated forest and windthrow would be too

great of a risk if the canopy were opened up substantially. In the remaining area, the overstory is predominantly older Douglas-fir and larch, and is not very dense (Unit EE2).

106. The need for forest thinning is obvious and necessary. (D64)

FS Response: Thank you for your comment.

107. The FNF has failed to cite any evidence that it's managing for "large tree" (old-growth) strategy will improve old growth or old-growth wildlife species habitat over the short or long term...Producing old-growth habitat through active management is an untested hypothesis. (D65)

FS Response: Producing old growth habitat is not a purpose of this project, and the intent of the decision is to avoid directly impacting old growth forest (EA, p. 2-47). Any old growth units or portions of units in old growth would not be included in the final decision. Reducing fuels within stands to reduce risk of future crown fire is a primary objective of the project. Because stands were selected based on their location relative to private lands and other values deserving protection, there is a desire to maintain a reduced stand density/fuel condition into the future. Though any future treatment would require another analysis and decision, the silvicultural diagnosis report (Project File Exhibit F-1) has acknowledged that the long-term target stand condition for the treatment areas is one of more open forest conditions, and that development of old growth forest conditions would be contrary to these long-term conditions.

108. Please disclose the best information from Flathead NF monitoring that proves the areas to be treated will retain characteristics meeting Regional or Forest Plan old growth criteria or how they will at some specified time in the future. (D65)

FS Response: Refer to the response to comment #107. An old growth analysis at the stand and landscape scale is disclosed in the Red Whale Environmental Assessment. At the landscape scale it was determined that old growth forest conditions are within the Historical Range of Variability for the Red Whale Project area (EA p. 3-29). It is the intent of the Red Whale Project to avoid directly impacting any existing old growth forest, and any areas within units that are found to be old growth would be dropped in the selected alternative (EA p. 2-47).

109. Given the extreme amount of logging done on National Forest land on the Flathead NF, we expect that there had to be much more than the present level of old-growth than there is now. The EA analysis must deal with that very basic fact. (D65)

FS Response: Refer to the responses to both comment #107 and #108.

110. Please disclose how many old logging units in the project area are deficient in snags, another vital and necessary component of old-growth habitat. (D65)

FS Response: An analysis of snags within the project area is provided in Chapter 3 of the EA, Forest Vegetation section (p. 3-21 through 3-23).

- 111. Please see ICBEMP DEIS Appendix 12, which presents scientific information that contrast greatly with the FNF on the topic of adequate snag and down woody debris retention in logged areas. (D65)**

FS Response: A primary purpose of this project is to reduce fuel loadings in selected areas of the Wildland-Urban Interface. Large amounts of dead woody material left on the treatment area would be contrary to this purpose, and would not meet the objectives. Larger larch and Douglas-fir snags and large diameter downed wood would be retained, as they are of high value for wildlife and soils productivity. As the EA discloses (Chapter 3 - Forest Vegetation section), most of the project area would be untreated, providing for a great diversity of snag and downed wood conditions across the landscape.

- 112. In international and European political processes, deadwood is increasingly being accepted as a key indicator of naturalness in forest ecosystems. (D65)**

FS Response: The value of dead woody material is acknowledged in the EA.

- 113. The high intensity forest manipulation as proposed will not lend towards recovery of functional ecosystems. ...Beschta et al. (1995) state “Land managers should be managing for the naturally evolving ecosystems, rather than perpetuating artificial ones we have attempted to create.” (D65)**

FS Response: A primary purpose of this project is to reduce fuel loadings in selected areas of the wildland-urban interface, in order to protect identified human values in the area and provide for firefighter safety. The ecosystem within the Red Whale Project area is not considered to be in a “non-functioning” condition, and “recovery” is not necessary, nor is it an objective of the project. Landscape level assessments concur (see Forest Vegetation section of the EA, Chapter 3, and Project File Exhibit F5). Forest conditions within timber harvest areas are not identical to what a natural disturbance, such as fire, might create, and thus could be labeled as artificial. However, “artificial” does not necessarily equate to undesirable or unhealthy. It is our desire to manage the forest at the stand and landscape scale to maintain the ecological integrity AND to meet forest and project level objectives.

- 114. FS contentions that potential insects and tree diseases are something to be concerned about ecologically runs counter to more enlightened thinking on such matters. Harvey et al. 1994 state: “Although usually viewed as pests at the tree and stand scale, insects and disease organisms perform functions on a broader scale. ... Pests are a part of even the healthiest eastside ecosystems.” (D65)**

FS Response: It is clearly stated in the EA (Forest Vegetation, Chapter 3) that we accept insects and disease as natural components of the ecosystem, but their effects (most particularly when they cause high levels of mortality) are not desirable in certain areas. This is the case in the Red Whale wildland-urban interface, due to the large amount of dead woody material that can result from active infestations, and associated potential fire behavior.

- 115. The EA claims that no old growth will be treated, however Alternatives 2 & 4 propose treating old growth...The FS must analyze how the treatments will affect old-growth dependent species in treatment units that are close to fulfilling the requirements for old-growth status. Does the FNF currently meet old-growth requirements? (D65)**

FS Response: Refer to the response to comment #108.

- 116. Please consider the large body of research that indicates logging, roads and other human caused disturbance promote the spread of tree diseases and insect infestation. (D65)**

FS Response: The effects of the proposed action on insects and diseases are disclosed in the EA, Chapter 3 - Forest Vegetation.

Soils

- 117. Alt. 3 disturbs the least soil...(D34)**

FS Response: This is true; Alternative 3 results in the least disturbance to the soil.

- 118. How can the FS move forward with alternative 2 or 4 when the EA states that Units Z, Y2, X, O and K risk exceeding the soil quality standards? (D65)**

FS Response: All alternatives have been designed to achieve the soil quality standards. Required design features (Chapter 2 of the EA) for Units Z, Y2, X, O, and K would reduce the risk of exceeding the soil quality standards. Specifically, all existing roads and skid trails would be reused to the extent feasible, unless doing so would adversely affect soil, water, or other resources. If roads or trails cannot be reused, their extent must be considered when laying out additional skid trails. The intent is to achieve the soil quality standards in all alternatives.

- 119. It is the FNF responsibility to create and maintain an accurate inventory of historic skid trails or the otherwise dedicated network of skid trails, landings and other management aspects that represent essentially permanent or at least long-term reductions in soil productivity. (D65)**

FS Response: We perform on-the-ground surveys in all of the proposed activity areas to create an accurate inventory. These surveys include identifying the amount of old landings, skid trails, and other soil disturbances still considered as detrimental soil disturbances. The results of these surveys are in Table 3-75 in the Red Whale EA, and in the Project File, Section O.

- 120. It is clear that the intent of the Regional Soil Quality Standards is that the FS must, in each case, consider the cumulative effects of both past and proposed soil disturbances to assure that soil productivity will be maintained. (D65)**

FS Response: The soil analysis follows Regional Guidelines for soil analysis as specified in FSM 2500-99-1. In addition, we have monitoring that relates physical soil condition to actual

bulk density readings. Thus, we are able to relate visually observable soil features to bulk density measurements taken from similar soils and growth-limiting bulk densities for various soil textures from the literature. We use this monitoring to determine how much detrimental soil disturbance exists in a proposed activity area. We can measure the extent of detrimental soil disturbance across an activity area. The results of this monitoring are discussed in the environmental analysis documents.

- 121. The EA states that soil effects do not extend off the piece of ground where they occur. Adams and Froehlich (1981) provide reasons why impacts beyond the directly compacted area must be considered in any reasonable definition of soil productivity. “Since tree roots extend not only in depth but also in area, the potential for growth impact also becomes greater as compaction affects more of the rooting area.” In a thinned stand for example, you can see the greatest growth impacts in residual trees that closely border major skid trails or that have been subject to traffic on more than one side of the stem. How can these seemingly conflicting viewpoints be reconciled? (D65)**

FS Response: The statement that effects do not occur off the piece of ground where they occur relates to the selection of the activity area as the analysis area for cumulative effects. The paper by Adams and Froehlich states that the use of dedicated skid trails, which was a new approach when this paper was issued, can reduce compaction to 10 percent or less of the land area. The FNF requires the use of dedicated skid trails within activity areas for the Red Whale Project to reduce compaction and prevent equipment from traveling on more than one side of individual leave trees.

- 122. The FS does not have enough soil bulk density and other compaction monitoring data collected at the adequate soil depths and in enough sites on the FNF to be able to make accurate predictions about the effects of soil compaction in project activity areas. (D65)**

FS Response: As stated in the EA in the information sources part of the soil analysis, beginning in 1982 bulk density samples have been taken from the Flathead National Forest in areas that were managed for timber production. Two statistical analyses of those bulk density measurements establish their validity in determining the effects of management on the ground. The Project File, Section O contains these documents.

- 123. The scientific adequacy of the FS methodology for maintaining soil productivity on the FNF has never been demonstrated. The EA does not cite any scientific basis for adopting its percent numerical limits. (D65)**

FS Response: We use the Regional Standard because at this time we have no better documentation for any other standard for acceptable amounts of soil disturbance. Until such time that research better defines acceptable limits of soil detrimental disturbance, we will use the current Region 1 Standard. Page-Dumroese and others (2000) wrote that relatively small disturbances of 15 % of an area result in relatively small losses of nutrients and at those levels

current guidelines (less than 15 %) seem to be adequate. See the response to comment #125 below.

- 124. Neither soil function nor soil quality have ever been monitored on the FNF following management activities. This has long-term implications for sustained timber production as well as the ecological relationships in the soil upon which timber production so very much depends. (D65)**

FS Response: This statement is inaccurate. The FNF has monitored soil conditions as an indicator of soil quality following management actions on numerous sites over the past several decades. Some of these monitoring efforts are documented in the Project File, Section O, and are used as the basis of the soil effects analysis.

- 125. Are the threshold levels for soil compaction adequate for maintaining soil productivity? Is allowing 15% of an area to be impaired appropriate to meet planning goals? The WildWest Institute asked the Northern Region if they have ever performed validation monitoring of its 15% Standard, in their February 26, 2002 Freedom of Information Act request to the Regional Forester....The Northern Region's reply stated that there is no documentation that responds to this request. If the FNF is aware of documentation that responds to this request, we formally request that you disclose it to us at this time. (D65)**

FS Response: The soil analysis followed Regional guidelines for soil analysis as specified in FSM 2500-99-1. Until such time that ongoing research better defines acceptable limits of soil detrimental disturbance, this is a reasonable, acceptable amount. It is possible to measure the aerial extent of detrimental soil disturbance across an activity area. Powers and others (1990) describe the use of a 15 percent as being the lowest magnitude of change detectable given current monitoring technology. See the response to comment #123 above.

- 126. The precision or amount of error, in the measures of detrimental disturbance for activity areas must be disclosed...the EA must present confidence intervals, standard deviations or standard errors in association with its conclusions regarding the amount of activity area detrimental soil disturbance as well as all other resource impacts estimations or modeling. (D65)**

FS Response: Estimates of soil detrimental disturbance are based upon empirical data gathered within proposed treatment areas. These data are typically not modeled to determine levels of disturbance but rather are used directly to calculate disturbance levels. Monitoring of numerous projects on the Flathead National Forest (see Project File) has supported the accuracy of this direct assessment method.

- 127. Soil productivity can only be protected if it turns out that the soil Standards work. To determine if they work, the FS would have to undertake objective scientifically sound measurements of what the soil produces (grows) following management activities. Has microorganism replacement been surveyed at sites similar to the proposed site (Wedge, Robert?) (D65)**

FS Response: The Flathead National Forest and Region 1 do not use microbial activity or biomass production as indicators of soil productivity. We do monitor after project implementation to determine how much detrimental soil disturbance has been caused by the management activity. We assume that if less than 15% of the management activity lacks detrimental soil disturbance, then the site would be able to produce future healthy forest vegetation. Several post implementation monitoring efforts are cited in the soil analysis and are in the Project File. These include the following monitoring projects: a monitoring report for the Moose Fire Salvage Project (Collins, 2003) on soils near to and similar to those in the project area, found that winter logging on severely burned sites resulted in detrimental soil disturbance levels below 15 percent. Monitoring results from winter logging on the Half Moon Timber Sale, Moose Fire Salvage (called the Glacier View and Big Creek Salvage Timber Sales: Soil Disturbance Survey and Report) and the Swaney Fire Salvage projects are in the Project File, section O). These sales all had less than 15 percent detrimental soil disturbance. Monitoring on the Flathead National Forest Duck Bill Timber sale showed that 8 units logged with a forwarder all met the soil quality standards with less than 15 percent detrimental soil disturbance (Project File, section O). Approximately 200 bulk density samples were collected where excavators worked. Those samples showed that excavators had minor effects on soil bulk density. In addition, when they are used on slopes that are less than 45 percent, displacement of the topsoil is rare. Several timber sale projects have been monitored on the Flathead National Forest. These projects displayed less than 15 percent detrimental soil disturbance from ground based logging on designated skid trails when followed by excavator site preparation or fuels reduction (see Project File, section O).

128. The chemical and biological make-up of the specific soils in the project area, and their ability to withstand detrimental disturbance that lowers soil productivity is not a subject adequately taken up by the FS. (D65)

FS Response: The soil and landtype characteristics including the presence of soil disturbance from past activities would be considered in the final design of any proposed activities. The Project File contains monitoring results from soils classified similarly to those within the Red Whale Project area. The soils and hydrology specialists' reports analyze the potential for erosion to occur following project activities; these reports will be in the Project File. The soil analysis in the EA includes discussions on organic matter and its role in soil productivity, including soil organisms.

129. Is the FNF making the assumption that soil compaction is the only factor that contributes to loss of soil productivity? How do microbial levels play into the equations? What other factors are used to determine soil productivity? (D65)

FS Response: No, the FNF does not make the assumption that soil compaction is the only factor that would contribute to loss of soil productivity. Soil organic matter and soil organisms were discussed in the soil analysis section of the EA. We assume that soil organisms would be present if sufficient levels of organic matter are maintained in the soils.

- 130. The FS should disclose the locations and sizes of proposed log landings, which is important because of the extreme amount of soil and other disturbance that occurs on these sites – they will be essentially industrialized for the long-term, despite mitigation. (D65)**

FS Response: Potential log landings have been identified on a map and their effects analyzed (refer to the Hydrology section of the Project File, and the EA, p. 3-183 through 3-191). In addition, the amount of detrimental soil disturbance expected from the proposed activities includes disturbance resulting from the log landings.

- 131. Have log landings been factored into soil productivity? (D65)**

FS Response: Yes, log landings were considered in both the existing condition and the effects analysis.

- 132. What are the rehabilitation measures that will be incorporated if the soil productivity surpasses the arbitrary 15% level? Has the FNF done post-rehab monitoring to prove that rehabilitation increases soil productivity compared to non-rehabbed areas? Has the FNF done post-reclamation monitoring to compare soil productivity in undisturbed sites to rehabbed temporary roads? (D65)**

FS Response: The rehabilitation measures were discussed in the Cumulative Effects section at the end of the Soil Analysis section of the EA. The effectiveness of these activities is based on scientific studies by research entities, and the documents are cited in the analysis. The goal of the soil design features in Chapter 2 is to reduce the occurrence of detrimental soil disturbances to levels that do not require restoration activities.

- 133. There is no meaning to the 15% standard in cases where logging is proposed over previously disturbed soils while activity area boundaries are not the same as the original...the FS can always draw the boundary arbitrarily to be favorable for meeting its 15% standard – which is itself an arbitrary number. (D65)**

FS Response: Activity area boundaries tend to follow stand boundaries, which remain constant. In most cases past activities also followed the stand boundaries. However, even if the proposed boundary is not the same as the boundary of the past activity, our field investigation would still provide an accounting of the existing condition within the proposed activity area.

- 134. It is reasonable to expect that in order for the FS to assure that soil productivity is not or has not been significantly impaired...tree growth must not be significantly reduced by soil-disturbing management activities. (D65)**

FS Response: I agree.

- 135. The FS must not simply rely upon Best Management Practices (BMPs) to base claims that soil productivity will be maintained following logging practices. BMP monitoring does not attempt to measure post-project soil productivity, since**

the audits are not scientifically designed to do so. Nor does it result in quantitative measures of detrimental disturbance, or soil productivity, which are the most relevant factors here. (D65)

FS Response: If management actions were to be implemented in the project area, a post-treatment monitoring plan would include soils monitoring in specified units. In addition, the FNF monitors treatment units following management to ensure they are adequately stocked, as required by NFMA.

136. The FS must disclose the implications of all landtype limitations for detrimental soil impacts...the public must be able to tell which proposed activity areas fall into which landtypes, and therefore might be more at risk fro erosion or other detrimental impacts that decrease soil productivity. Finally, the FS must disclose the results of monitoring of past actions on these various landtypes that would reveal the differential levels of soil impacts of the various logging activities carried out in the past (and now proposed with this project.) (D65)

FS Response: The soil and landtype characteristics including the presence of soil disturbance from past activities would be considered in the final design of any proposed activities. The Project File contains monitoring results from soils that are classified similarly to those within the Red Whale Project area. The soils and hydrology specialists' reports analyze the potential for erosion to occur following project activities; these reports are in the Project File. In addition, Table 3-73 in the EA provides soil characteristics from the soil survey report. This is a report correlated by the NRCS, the national agency that sets standards for all soil surveys.

Wildlife

137. The FS must demonstrate that the project and its analysis are consistent with all Standards contained in the Lynx Conservation and Assessment Strategy (LCAS). (D65)

FS Response: The FS signed a Lynx Conservation Agreement (CA) with the Fish and Wildlife Service in 2001 to consider the LCAS during project-level analyses, and the FS agreed to not proceed with projects that would be "likely to adversely affect" lynx until the plans were amended. In 2006 the CA was extended for 5 years (until 2011), or until all relevant forest plans were revised to provide guidance necessary to conserve lynx. The guidance contained in the Record of Decision (March 2007) for the Northern Rockies Lynx Management Direction (NRLMD) fulfilled the agreement to amend the plans. Therefore, project analyses must now adhere to the NRLMD. The Red Whale Biological Assessment (BA) and the EA include a description of how the project would affect lynx under the direction in the NRLMD.

138. Proper management of the forest is good for the land and wildlife alike ... I believe that forest land left to overgrow and entangle will cause major problems for wildlife...(D31)

FS Response: The words "proper management" means different things to different people; therefore, it is difficult to respond to your concern. In general, however, no matter what phase of

natural succession the forest is in, some species of wildlife will find suitable habitat and others will not. The overgrown and entangled forest condition you described, in fact may become problematic for some wildlife, but not all; birds and small mammals would find no real concerns in the entangled forest while moose and elk may find it difficult to travel through.

- 139. In particular, I support yearlong closure of at least part of the Red Meadow Road because it will help protect particularly important grizzly habitat. The EA on page 3-102 makes this clear: “Perhaps the most beneficial effect on grizzly bear security that Alternative 3 proposes is the year round closure of a portion of Red Meadow Road (#115). The portion of this road proposed for closure would reduce motorized effects on the majority of the avalanche chutes in the Red Meadow drainage and would allow grizzly bears to freely range throughout the closed-road portion of the drainage with minimal disturbance.” (EA at 3-102). The other alternatives would not close this critical portion of the road year round. (D33, 34, 36, 37, 38, 39, 46, 47, 48, 49, 51, 52, 54, 55, 56, 60, 66, 67)**

FS Response: It will be up to the decision maker to determine which alternative best meets the stated purpose and need of the proposed project.

- 140. Alt. 3 has the least impact on lynx, largely by not logging or thinning suitable lynx habitat. (D34)**

FS Response: Your characterization of least impacts to lynx is correct for the action alternative however, the effects analysis does state that the No Action Alternative (Alternative 1) has the least impact.

- 141. ...I urge you to decommission the roads you intend to berm shut, removing their culverts to better protect ... wildlife. (D33, 36, 37, 39, 46, 48, 49, 51, 52, 54, 55, 56, 60, 62, 67)**

FS Response: Refer to the response to comment #61.

- 142. Alt. 3 provides the best hiding cover and corridors for wildlife by retaining un-thinned buffer strips along roads, substantially reducing risk of mortality. (D34)**

FS Response: Alternative 3 does provide better hiding cover and corridors for wildlife than the other action alternatives; in turn, this alternative has the potential of being the least effective in reducing potential fire intensity.

- 143. The EA uses outdated road data, using 1995-1999 summaries at 3-117. (D34)**

FS Response: The road data you refer to are not outdated, it is just that between 1999 and the present road data were not readily available. Newer roads information is now included in the Project File.

- 144. The EA, at 3-118, uses outdated Recovery Plan estimates (1993) of the minimum grizzly bear population size for the NCDE, while Grizzly Bear Recovery Coordinator Chris Servheen provides the rudiments of such an estimate based on the Recovery Plan criteria and formula on an annual basis. (D34)**

FS Response: The Recovery Plan is still the formal document that outlines grizzly bear baseline data and actions needed for recovery. Recent DNA work in the NCDE by Kate Kendall of the USGS has recently produced a minimum identification of 545 individuals, exceeding the 1993 Recovery Plan. A May 8, 2007 letter from United States Fish and Wildlife Service (Project File, Section N, Exhibit 1A) discusses the Recovery Plan estimates as they relate to mortality. Please also refer to this document as responsive to your comment.

- 145. The EA fails to revisit the Moose Post-Fire Project and its project-specific amendments to A19 standards in light of Red Whale Alternative 2 and 4's failure to meet A19 as well. Conversely, the Moose decision did not anticipate that Red Whale would not comply with A19. Together and separately, these projects fail to provide an adequate cumulative effects analysis in this regard. (D34)**

FS Response: The Moose Post-Fire Project already went through Section 7 (ESA) consultation and is outside the scope and cumulative effects analysis area of the Red Whale Project. For threatened and endangered species, ESA cumulative effects include the effects of future state, tribal, local, or private actions that are reasonably certain to occur in the action area. Future (not past) federal actions that are unrelated to the proposed action are not considered in ESA cumulative effects analyses because they will be subject to separate consultation pursuant to Section 7 of the Act. The cumulative effects for grizzly bear have been displayed in the EA, pages 3-112 to 3-118.

- 146. The Forest Service is again engineering its own train wreck in considering implementation of Alternatives 2 or 4, both of which fail to favor the grizzly bear in its MS-1 habitat, among other things. (D34)**

FS Response: The implementation of the Red Whale Project, under any of the action alternatives, will produce a net gain in habitat security for the grizzly bear and therefore clearly favors grizzly bear habitat needs. Again, it is important to note that there is no evidence to support a prediction that the NCDE grizzly bear population is in decline. In fact, the best available science indicates that bear populations are at least 545 individual bears. The best evidence indicates that populations have increased significantly since the Flathead National Forest Land and Resource Management Plan (Forest Plan) was adopted even though the historical road densities exceeded the objectives for these parameters. Flathead National Forest management has contributed to this population of bears and the Red Whale Project will contribute to improving bear habitat. According to the USFWS, the evidence suggests a stable or perhaps increasing number of grizzly bears in several areas of the recovery zone. It's hard to understand the train wreck envisioned given the evidence at hand, which includes the fact that grizzly bear mortality is generally not associated with National Forest System lands. All of the professionals involved in the recovery of grizzly bears in the NCDE have mentioned the need for balanced approaches to support the recovery of this species and social support is a critical

element in achieving this balance. National Forest management has and continues to achieve positive on-the-ground results for this species.

- 147. We are concerned about increasing development on land surrounding the Flathead NF. These trends do not bode well for grizzly bears and other species that require the particular set of ecological conditions found in large, undeveloped wildlands. It falls upon the Forest Service and other land management agencies to ensure that adequate habitat remains available to support viable populations of species important to the American public. The GVRD is one of the few remaining areas where small changes in on-the-ground conditions can make a real and substantial difference in the long-term availability of security habitat for grizzly bears. (D40)**

FS Response: The Red Whale project is but one of many recent projects on the Flathead National Forest that has had as part of its purpose to improve upon existing habitat security specifically for grizzly bear. Under each of the Red Whale Project action alternatives, there would be continued improvement of habitat security through reductions in availability of motorized routes.

- 148. Forest plan standards for grizzly bear are the absolute minimum level of management required if we are to ensure viability in the U.S., yet even those standards are insufficient in several respects. ...we would ask that any decision meet the full range of Forest Plan standards and guidelines for providing security habitat with low road densities. (D40)**

FS Response: The proposed Red Whale Project alternatives have been designed to achieve applicable Forest Plan standards. Some alternatives would become immediately consistent while others would improve grizzly bear habitat conditions

- 149. Grizzlies are endangered and must be protected. (D41)**

FS Response: Grizzlies are listed as “threatened” under the Endangered Species Act and are given high priority in any project planned and/or implemented on the Flathead National Forest in MS-1 and MS-2 habitat.

- 150. I’ve lived in grizzly country most of my life and I’ve yet to see a road detour a bear from going where he wanted to go. (D42)**

FS Response: The relationship between roads and grizzly bears was one aspect of a 10-year study that was conducted in the Swan Mountains between 1987 and 1996; the results of the study were published in 1997 by R.D. Mace and J. Waller. They found that bears in fact were affected by roads on the landscape and the more volume of traffic on a road, the greater the avoidance of the road; roads with low traffic volume were not as strongly avoided by bears. Therefore, not to minimize your observations, but carefully designed research tends to provide a more accurate understanding of relationships between wildlife and the environment. With large home ranges, it is not possible for many bears to not have roads as part of their territory; however, research has shown that bears do not spend much time adjacent to roads.

- 151. Please do not cater to the very small but noisy minority who want to run their noxious snowmobiles and ORVs anywhere they want...The grizzlies will appreciate the quiet. (D50)**

FS Response: The Red Whale Project, as well as all other projects and programs, strives to allow uses of the Flathead National Forest that are compatible with not only the needs of grizzly bears, but other wildlife as well.

- 152. I have seen grizzlies frequently when hiking in the (Red Whale Project) area, so it is clearly important habitat. (D53)**

FS Response: All Flathead National Forest lands that have been designated as MS-1 or MS-2 and are considered important habitat. The Red Whale Project area falls into this category.

- 153. It's critical we restore/maintain as much habitat as possible for corridor use as well as residential habitat for bears. This will become only more essential as warming trends continue and growth and development pressures come to bear. (D60)**

FS Response: The Red Whale Project proposes to increase habitat security through restrictions of motorized use of trails and roads in the project area.

- 154. Furthermore, in consideration of the fact that satellite data indicate that grizzly bears are more than happy to used roaded and managed habitat, to jump to compliance with the arbitrary percentage numbers ... (D58)**

FS Response: Your characterization of the information from satellite telemetry information and grizzly bears associated with roaded and managed habitat is incorrect and is not supported by the on-going research.

- 155. (Since bears will readily use roaded areas)...to comply with the arbitrary percentage numbers of the poorly done Amendment 19 and move road closures forward into the travel management base line is probably grounds for litigation. (D58)**

FS Response: The available research does not support your assertion that bears readily use roaded areas; therefore, the Red Whale Project proposes to continue the Flathead National Forest's trajectory of continuing to improve habitat security for the grizzly bear as per Amendment 19.

- 156. The EA discloses that 'When compared to A19 motorized standards, the Lower Whale subunit currently provides a relatively low amount of security for grizzly bears.' Yet the Flathead is not even trying to meet Forest Plan standards. (D61)**

FS Response: On the contrary, the Flathead National Forest continues to make project-level decisions that improve upon existing levels of grizzly bear habitat security.

157. This project is reducing hiding cover for bears that could result in increased mortality. (D61)

FS Response: Reductions of existing hiding cover along roads open to motorized used can increase the risk of mortality; however, road-adjacent habitats are not preferred areas for bears since they tend to avoid roads. Nevertheless, less wary bears such as sub-adults may be those bears that may be most subject to increase risk of mortality.

158. All alternatives should ensure adequate hiding cover and meet A19 standards. (D61)

FS Response: The decision maker will have to decide whether to provide as much hiding cover as possible adjacent to open roads and whether to fully meet, or make progress towards, achieving A19 standards.

159. The Lynx Analysis Units already have a large percentage of unsuitable/non-habitat in them...Alternative 3 is the only alternative that would retain the available suitable habitat. The other alternatives reduce lynx habitat and should not be selected. (D61)

FS Response: The Northern Rockies Lynx Management Direction (NRLMD) describes lynx habitat in an unsuitable condition as either stand replacement fires or some sort of silvicultural treatment of forest stands that result in trees not protruding above the snow during the winter. The condition of the post-fire Wedge Canyon Fire (2003) area is an example of this condition. The Red Whale Project was mostly designed and analyzed using the LCAS, which did not have this definition. The numbers displayed in the Red Whale EA in Table 3-33 (page 3-134) reflect mostly the amount of closed-canopied forest stands that do not provide winter snowshoe hare habitat. Within the South Trail and Moose LAUs, the relatively high amount of unsuitable habitat is due to the recent (2003) Wedge Canyon Fire, which is not expected to provide winter snowshoe hare habitat for another 5-10 years. The NRLMD allows for a reduction of suitable lynx habitat within the WUI.

160. There is simply no “settled science” that demonstrates that protecting grizzly bear from loss of security by prohibiting motorized access has significant long-term beneficial effects on animal populations. Satellite data indicate that grizzly bears do not avoid managed forests that have road densities and open road densities greater than 2miles/sq.mile. The bears spend most of their time in the roaded areas while avoiding ‘security core’ areas... These data call into question the need for additional motorized closures and the validity of biologists assumptions that ‘core’ areas will produce long-term benefits to grizzly habitat and populations. (D59)

FS Response: The report entitled “Grizzly Bear Ecology in the Swan Mountains, Montana” prepared by R.D. Mace and J.S. Waller in 1997 documented research on grizzly bears that says the opposite of what you are asserting. The Forest Service has the obligation to use the best

available science in its effects analyses. If you have published reports that document what you are trying to say, please provide them to the Forest Service so that they may be used in the analysis of effects.

161. The reductions for wildlife concerns in Alt. 3 are not based on reality...wildlife is making more and more use of the treated areas as the browse comes in due to more light and water reaching the forest floor. (D64)

FS Response: There is no question that when closed-canopy forests are opened up that forest floor vegetation tends to respond with more vigor and generally a higher volume of plant biomass. However, that is not the issue relative to wildlife concerns reflected in Alternative 3. The need to maintain movement areas across potential locations of human-caused mortality is really the main issue. Most species of wildlife that occupy habitats in the North Fork tend to rely on forested areas (hiding cover) to utilize habitats across the landscape; this is an especially important need when wildlife are required to live around permanent human presence, such as roads and residential areas. The compromise Alternative 3 makes is to afford wildlife the opportunity to continue to cross roads and use habitats adjacent to private lands, while still maintaining a landscape condition that can protect people's homes.

162. The Amendment 19 model of required security from motorized access is based on flawed, arbitrary and capricious assumptions made in Biological Opinions. The science cited as support for A19 assumptions has been proven obsolete and inadequate. We now have unimpeachable proof that the old technology was sampling where grizzly bears sleep during the day and that bears make the most use of available and suitable habitat at night. There is no evidence that North Fork grizzly bears do not exhibit the same survival behavior that Swan River bears do. No significant benefit to bears will result from the extreme restrictions on the use of existing roads needed for access to treatment units in this project. These restrictions increase costs and reduce returns to Federal and County governments. (D59)

FS Response: Please share the source of information that proves that the science supporting A19 is obsolete and inadequate. Certainly, the newer GPS radio collar technology is a much better tool of determining how bears use the landscape. However, until there is published research that changes the conclusions made by R.D. Mace and J.S. Waller in their 1997 "Grizzly bear ecology in the Swan Mountains, Montana" publication, there is little chance that the access management direction for managing grizzly bear habitat security will change.

163. The Red Whale EA fails to consider the new grizzly bear monitoring information and fails to consider the environmental, social, economic, and human health and safety adverse effects, both short and long term cumulative adverse effects everyone knows are occurring due to the blind application of A-19's flawed motorized access standards. All treatments in the EA will have long-term benefits to grizzly bear habitat, and there is no reason why using roads currently closed during the non-denning season would harm them. (D59)

FS Response: The Red Whale Project would be implemented with design features that allow for the use of currently restricted roads. Specifically, the requirement is have "no net increase" in

open road density and “no net decrease” in security core habitat. There would be some currently open roads that may have to be temporarily closed while closed roads are utilized for fuels reduction activities; this allows the project to have “no net increase” in open road density during project activities. The project is being implemented within the framework of A19, independent of whether some believe that there will be no harm to grizzly bears by the use of closed roads. It is agreed that each of the action alternatives will have long-term benefits to grizzly bear habitat; however, only Alternative 3 proposes to immediately achieve A19 management direction.

164. What you should be doing is looking at new science to revise the ineffective, unnecessary and extremely costly A-19 standards or at least use new science to support temporary project-specific exceptions to those flawed standards. (D59)

FS Response: Revising A19 standards is not within the scope of this project; however, where warranted, the Flathead National Forest has made project-specific amendments to A19. A recent example of this is contained in a recent (2004) decision to amend A19 standards in the Lower Whale subunit (which is part of Red Whale Project’s area). This amendment decision was part of the Robert-Wedge Post-Fire Project and was designed to maximize grizzly bear habitat security in the context of a) a relatively small subunit with b) a relatively high amount of private land and access needs. The Flathead National Forest has a record of accomplishment that shows that amendments to A19 will be pursued when necessary.

165. Please disclose the best information from FNF monitoring for the presence of old-growth wildlife species in areas previously treated as now proposed. Presently we have no reason to believe anything other than logging will reduce soil productivity, reduce their natural qualities, reduce their habitat value for wildlife, and reduce their resiliency to subsequent disturbance, such as fire. (D65)

FS Response: No old growth forest habitat is intended to be treated within the Red Whale Project. However, a few units have some old growth characteristics. Refer to the vegetation section of the EA on pages 3-23 through 3-27 for the discussion of these units and pages 3-39 and 3-40 for disclosure of effects to old growth and late successional forest.

166. Is it the FNF position that maintaining a certain percentage of old growth on the Forest is enough to maintain population viability of all species needing old-growth habitat? If so, what scientifically based rationale is the FNF relying upon to assert that maintaining that percentage of old growth is enough to maintain population viability of all species needing old-growth habitat, when no baseline levels have ever been disclosed? (D65)

FS Response: Old growth direction for the Forest is provided in Amendment 21 to the Flathead National Forest Land and Resource Management Plan (Management Direction Related to Old Growth Forests). We have conducted an old growth analysis according to the requirements in Amendment 21 (refer to pages 3-23 through 3-29 in the EA) even though we are not proposing to affect old growth forests. Using information from Amendment 21, an additional assessment has also been conducted which looks at animal community diversity for the Flathead National Forest (refer to the Project File). This assessment was done at multiple scales, including the Forest and Regional scales, and explains how/why we believe viable populations would be

maintained. It was determined that viability of any wildlife species is not at risk after a full investigation on the effects of the proposed action and additional cumulative impacts. Further, the analysis did not show that the proposed project would preclude individuals from interacting with others in the planning area.

- 167. The FS must disclose its transparent, well thought-out long-term strategy for old-growth associated wildlife species viability in a properly defined cumulative effects analysis area. (D65)**

FS Response: Refer to the response to comment #166.

- 168. The EA does not demonstrate that the proposed activities would be in compliance with all of the Forest Plan wildlife standards, and with NFMAs population viability provisions (D65)**

FS Response: The project was designed to comply with all Forest Plan standards, and the analysis did not indicate that there would be any impact on wildlife population viability.

- 169. As far as we are aware, the Flathead NF has never determined minimum viable populations for any MIS or TES species as NFMA requires, nor has it specified the amount and distribution of habitat necessary to maintain viable populations. Nor has it monitored population trends of indicator species, as NFMA requires. The FS must disclose the range of populations of MIS or TES species, and the historic range of important habitat components and spatial considerations. (D65)**

FS Response: The proxy-on-proxy approach is appropriate for ensuring species viability and is used both to monitor trend and for assessing viability. This approach uses Management Indicator Species (MIS) as an indicator for other species (the first level of proxy), and habitat capability (the second level of proxy) as an indicator for viability of the MIS. Crucial to this approach is that the methodology for the habitat proxy be sound and that the habitat is well distributed and of sufficient quantity. The analysis in the NEPA documents and Biological Evaluation of effects on sensitive and other species or habitats of concern ends with a conclusion by the analyst whether the project would threaten population viability. More information about effects analysis for each species or habitat can be found in the assessment of animal community diversity for the Flathead National Forest in the Project File. This assessment is done at multiple scales, including the Forest and Regional scales. A section in Chapter 2 of the EA describes monitoring that would be done in conjunction with the Red Whale Project. Such observation and monitoring records were used to establish the reliability of the habitat models for the proxy-on-proxy approach.

- 170. The FS cannot claim that any proposed action may impact individuals and /or habitat but is not likely to contribute to a trend towards federal listing or loss of viability to the population or species when it has not carried out the necessary analyses. (D65)**

FS Response: The Project File (Exhibit M-14) contains the hard look and assessment at several analysis scales. The Red Whale Project analysis did not indicate that the proposed project would result in or contribute to a trend toward federal listing of any wildlife species.

- 171. The programmatic Lynx BA's determination means that Forest Plan implementation is a taking of lynx and makes Section 7 formal consultation on the Flathead NF Plan mandatory, before actions such as the proposed project are approved...The FNF must incorporate terms and conditions from a programmatic B.O. into a Forest Plan amendment or revision before projects affecting lynx habitat, such as this one, can be authorized. (D65)**

FS Response: The Northern Rockies Lynx Management Direction EIS Record of Decision was recently signed (March 2007) and now provides guidance for all projects in lynx habitat on the Flathead National Forest. The Red Whale Project will undergo appropriate Section 7 consultation when the Biological Assessment is submitted.

- 172. The FS must adequately address the effects of logging on landscape pattern, which is essential for designation of critical habitat. (D65)**

FS Response: Please refer to the Forest Vegetation section of the Red Whale Project EA and Project File for a discussion of the vegetation conditions across the landscape.

- 173. The LCAS sets mandatory Standards that would modify or amend the Forest Plan – steps the FNF has thus far not accomplished. (D65)**

FS Response: The Northern Rockies Lynx Management Direction EIS Record of Decision was recently signed (March 2007) and now provides guidance for all projects in lynx habitat on the Flathead National Forest.

- 174. The FNF cannot meet lynx denning requirements unless it is meeting Forest Plan old-growth requirements...As the FNF has not yet proved it is in compliance with old-growth species viability standards...the project may not be in compliance with the LCAS. (D65)**

FS Response: The Northern Rockies Lynx Management Direction (NRLMD) EIS Record of Decision was recently signed (March 2007) and now provides guidance for all projects in lynx habitat on the Flathead National Forest. Lynx denning habitat, according to the NRLMD is not a limiting factor on lynx productivity.

- 175. The impacts of both winter and non-winter motorized route densities must be adequately considered in regard to lynx...Please analyze the cumulative impacts on lynx from the additional new roads, additional skid trails, and other logging access routes to be constructed in the project area – roads/access routes that could be used by snowmobiles and other motorized recreational users, snowshoers, and cross country skiers long after the logging activities have stopped. These access routes can impact lynx habitat in all season because of increased access for humans. (D65)**

FS Response: According to the Northern Rockies Lynx Management Direction, lynx are not much bothered by roads and there does not appear to be significant avoidance of them. In addition, it will be required to have all constructed routes used for fuels reduction purposes reclaimed or otherwise made unsuitable for motorized travel.

- 176. “Lynx meta-population dynamics operate at regional scales.” (Ruggiero, et al. 1999). There must be maps and adequate discussion of the connectivity issue in the EA, making it possible to see the landscape features that affect connectivity and meta-population dynamics within and between LAUs both within and outside the project area, a goal of D65) the LCAS mapping requirement.**

FS Response: There are no connectivity issues between LAUs in north-south movements because of the vast amount of overlapping forests. Even the dirt/gravel surfaced North Fork Road does not appear to present a connectivity issue between Glacier National Park and the Flathead National Forest LAUs for east-west movements.

- 177. The very existence of roads and compacted travel routes from motorized vehicles in snow adversely affect lynx because of the advantage provided for other predators that normally wouldn’t be in portions of the project area in winter. (D65)**

FS Response: The Red Whale Project would make no changes in the existing environmental baseline, in terms of the amount or extent of legal over-the-snow motorized travel routes.

- 178. Any assumption that a project will not adversely impact the lynx simply because LCAS standards and guidelines are met has never been verified. (D65)**

FS Response: The Northern Rockies Lynx Management Direction (NRLMD) EIS Record of Decision was recently signed (March 2007) and now provides guidance for all projects in lynx habitat on the Flathead National Forest.

- 179. The multi-scale assessment given in the EA is inadequate. It does not state any findings regarding population viability at larger spatial scales, nor does it talk about connectivity issues. It does not address habitat concerns at a larger spatial scale. (D65)**

FS Response: The assumption made is that if the Red Whale Project is consistent with the Northern Rockies Lynx Management Direction, then Canada lynx will continue on a trajectory to be conserved and recovered. Few, if any, vegetation projects affect habitat connectivity. Most, if not all National Forests, have some level of riparian area protection requirements in their existing plans. This direction facilitates movement of lynx through riparian areas. According to the Northern Rockies Lynx Management Direction, habitat connectivity consists if an adequate amount of vegetation cover arranged in a way that allows lynx to move around. Narrow forested mountain ridges or shrub-steppe plateaus may serve as a link between more extensive areas of lynx habitat; wooded riparian areas may provide travel cover across open valley floors. Habitat connectivity was not as issue for lynx with this project.

- 180. Current literature states that flammulated, boreal and the great gray owls are species of concern that are sensitive to logging and other management activities. The FNF provides inadequate management strategies to insure their viability. (D65)**

FS Response: The flammulated owl was specifically analyzed for effects from the Red Whale Project; however, it was determined that there was no flammulated owl habitat that would be affected. The boreal and great gray owls were not specifically analyzed because neither is a designated Sensitive species.

- 181. Where is the current fisher population at? If fishers are dependent upon mature or old growth stands and the FNF doesn't currently have an acceptable level of old growth to insure viability, then any treatments areas that are near old-growth or mature stands would need further analysis for population viability. (D65)**

FS Response: The status of the fisher population is unknown; an analysis of the effects of the Red Whale Project on fisher/potential fisher habitat is contained in the EA.

- 182. Logging, road building, and other disturbance associated with the project and other cumulative impacts could affect goshawk nesting, post-fledging family habitat, alternative nesting, foraging, competitors, prey, and potential habitat, including areas far from cutting units. (D65)**

FS Response: An analysis of the effects of the Red Whale Project on the goshawk and potential goshawk habitat is contained in the EA.

- 183. Opening forests by logging will increase suitability of species such as the red-tailed hawk, which competes with goshawks, as well as the great horned owl, a goshawk predator. (D65)**

FS Response: C.D. Hargis et al. (C. McCarthy, and R. D. Perloff 1994. Home ranges and habitats of Northern Goshawks in eastern California. Studies in Avian Biology (16: 66-74) concluded that an "emphasis should be placed on creating or maintaining vegetation diversity" (as compared to random sites) (page 66) and "that timber harvests be designed to create a juxtaposition of seral stages, including mature timber, rather than large tracks of homogeneous, mid-seral stages" (page 73). The mix of age structures was important to protect young against predators, such as the great horned owl and red-tailed hawk (Daw, S. K., and S. Destafano. 2001: Forest characteristics of northern goshawk stands and post-fledging areas in Oregon. Journal of Wildlife Management 65: 59-65).

- 184. Since the management direction proposed for the goshawk in the project area differs significantly from the current best science, the agency has a responsibility to clearly explain to the public why their own management direction would work. (D65)**

FS Response: The Red Whale Project does not propose to manage old growth or near old growth forest stands, which are considered suitable nesting habitats for the goshawk. By avoiding older

aged forest stands and still accomplishing fuels reduction adjacent to private lands, it is believed that local goshawk populations will be minimally affected.

185. The FS states that “No formal goshawk surveys were conducted...” How can the FS claim to make a valid determination statement regarding a segment of the population when they haven’t surveyed the treatment units, much less the forest, to know what the population level is? How can the FS determine that the population is well distributed without surveying? (D65)

FS Response: The proposed treatment units have been surveyed to determine their habitat capability for species of concern such as T&E and Sensitive species; specific surveys for goshawk presence did not occur due to the lack of funds available to have a crew specifically systematically survey each proposed treatment unit. The habitat capability surveys did specifically screen each treatment unit as to its potential to function as either goshawk nesting or foraging habitat; survey data can be found in the Project File.

The total Red Whale Project encompasses approximately 4,320 acres in 64 units. However, the mechanical treatment units (3,138 acres in 58 units) are widely distributed within an area of approximately 37 mi² (~24,000 acres). Most of the forested habitat in the Red Whale Project area consists of middle aged (70-90 years) pole stands with a substantial amount of regenerated or recently burned (1988 Red Bench Fire) forest stands. Relatively few mature forest stands occur within the project area; therefore, habitat capability is relatively low for goshawk. According to P.L. Kennedy (2003) [Northern goshawk (*Accipiter gentilis atricapillus*): a technical conservation assessment. Unpublished report, USDA Forest Service, Rocky Mountain Region, Species Conservation Project, Denver, Colorado], goshawk home ranges vary in size (1,400 acres to 8,650 acres). Assuming that habitat quality is low due to the lack of mature and old growth forest stands in the project area, goshawk home range size is probably closer 8,650 acres than 1,400 acres. Therefore, relative to population distribution, the Red Whale Project would likely only affect 3 goshawk home ranges and introducing vegetative diversity through fuels reduction is not necessarily a negative impact in goshawk habitat.

In the spring and summer of 2005, the Northern Region conducted a field survey of goshawks across the accessible portions of the Region [S. Kowalski 2005: Frequency of Northern Goshawk presence in the Northern Region; 2005 Survey. Northern Region, USDA Forest Service, P.O. Box 7669, Missoula, MT]. The primary purpose of this survey was to use a statistically based approach to (1) estimate the rate of goshawk occupancy (frequency of goshawk presence) within a grid that approximates the territory size for this species, and (2) better define and document the geographic distribution of goshawks across the Northern Region.

Goshawk researchers have found no evidence that goshawks are declining in the western United States [P.L. Kennedy 1997: The Northern Goshawk (*Accipiter gentilis atricapillus*): Is there evidence of a population decline? Raptor Research 31:95-106, J.R. Squires and P.L. Kennedy 2006: Northern goshawk ecology: an assessment of current knowledge and information needs for conservation management. Studies in Avian Biology] and F. Samson [2005: A conservation assessment of the Northern Goshawk, Black-backed Woodpecker, Flammulated Owl, and Pileated Woodpecker in the Northern Region, USDA Forest Service. Unpublished report on file, Northern Region, Missoula, Montana] demonstrated that goshawk habitat was well distributed

and abundant in Region 1; the Kowalski (2005) estimate of goshawk presence suggests that goshawks are abundant and well distributed throughout the accessible portions of R1 National Forest System lands within Montana and Idaho during the breeding season. It must be kept in mind, however, that this conclusion is based on a one-year investigation and future surveys will probably be needed to confirm whether this pattern continues to hold true.

- 186. How can the FS claim that “all alternatives would comply with NFMA direction that wildlife habitat be managed to maintain viable populations of existing native and desired non-native species well distributed across the planning area: when they haven’t surveyed the proposed treatment units to determine that the population level is viable? (D65)**

FS Response: The use of habitat as a proxy at various analysis scales for population viability provides the basis for continued maintenance of viable populations.

- 187. The FS acknowledges that grizzly bears are using the proposed treatment area. As such, security conditions would become worsened in effect. (D65)**

FS Response: Each of the Red Whale action alternatives would improve upon the existing level of habitat security for grizzly bears through motorized access restrictions; the level of improved security varies by alternative.

- 188. Openings created by thinning would not necessarily be beneficial to grizzly bears. (D65)**

FS Response: The fuels reduction activities would result in more open forest conditions and therefore would tend to allow a more prolific understory vegetation composition to develop. This is expected to be potentially favorable foraging conditions for grizzly bear, especially in the spring. However, openings adjacent to well-traveled roads may increase the risk of mortality.

- 189. Only Alternative 3 would fully meet A-19 standards and the cumulative effect of this would be that ... “grizzly bears would have been afforded reasonable opportunity to persist.” This statement indicates that the other action alternatives will not afford grizzly bears a reasonable opportunity to persist. (D65)**

FS Response: This statement does not indicate the other action alternatives would not be able to afford grizzly bears a reasonable opportunity to persist. The other action alternatives would also improve habitat availability and security for bears and progress would be made toward fully achieving Amendment 19 standards as compared to the existing situation. In addition, there are other factors, besides meeting Amendment 19 standards, which will determine the potential for bears to persist; for example, a big factor is the likely continued influx of humans desiring to become residents in the North Fork.

- 190. Concerning bald eagles, has the FS conducted any studies to conclude that the buffer is sufficient to eliminate or minimize disturbance between the nest tree and Unit M. How has the FS determined the proper buffer?**

FS Response: The strategy contained in the “Montana Bald Eagle Management Plan” (Montana Bald Eagle Working Group. 1994. Montana Bald Eagle Management Plan. 2nd ed. U.S. Bureau of Reclamation, Montana Projects Office, Billings, Montana. 104pp) was used for determining the buffer width as well as the timing of project activities.

- 191. The continued fragmentation of the FNF is a major ongoing concern... The FS has not sufficiently dealt with the issue of fragmentation, road effects, and past logging on old-growth species habitat. The FS must disclose the degree to which edge effects on old-growth species habitat exist and how much total edge effect would be increased by the alternatives.**

FS Response: This project specifically avoids old growth forest stands because of the relative scarcity and ecological importance of that age class of forest. Therefore, the issue of old growth and other factors related to old growth (such as “edge effect”) are considered non-issues in view of the scope of the project.

- 192. Population dynamics include assessing population size, population growth rate, and linkages to other populations and must be included in a scientifically sound Population Viability Analysis. ...Also, temporal considerations of the impacts on wildlife population viability...must be considered. (D65)**

FS Response: The Project File contains an analysis at different landscape scales of species diversity and population viability.

- 193. The EA must analyze and disclose these fragmentation effects on old-growth species’ viability, caused by the current conditions and by the proposed project. (D65)**

FS Response: The Red Whale Project does not include old growth forest stands in any fuels reduction proposed units, therefore, the issue of old growth and other factors related to old growth such as “edge effect” were considered non-issues.

- 194. The FNF provides inadequate management strategies to insure viability of the pine marten. ... The treatments proposed for this project would reduce the availability of prey species for the marten. (D65)**

FS Response: There are no formal indications, such as an existing petition for federal listing on the Threatened and Endangered species list, that there are population viability concerns for the pine marten. The majority of the Red Whale project area encompassing fuels reduction sites would remain in its current condition because approximately 3,400 acres of forest would be thinned out of the 24,000-acre area encompassing the units (~14%). Therefore, given the widely scattered distribution of the fuels reduction units, no occupied pine marten territories would be significantly affected.

- 195. The FS has yet to design a consistent, workable, scientifically defensible strategy to ensure viable populations of the black-backed woodpecker. Fire suppression, insect and disease suppression, and ‘salvage’ logging policies of the**

Flathead NF are the biggest threat to black-backed woodpecker population viability on the Forest, unfortunately in failing to create a conservation strategy the cumulative impacts of the Flathead NF's ongoing fire suppression policy will remain unexamined. Please note that the three-toed woodpecker is another species that has similar habitat needs to the black-backed woodpecker. (D65)

FS Response: An analysis of effects from the Red Whale Project is contained within the EA; in addition, a viability assessment is contained in the Project File.

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