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September 12, 2019

To: Objection Reviewing Officer, USDA Forest Service, Northern Region
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Objection to the Soldier-Butler Decision and Environmental Assessment
Flathead-Lolo-Bitterroot Citizen Task Force

Introduction

We formally object to the Decision dated August 2, 2019 for the Soldier-Butler Project and Environmental Assessment and Response to Comments. The responsible official is Eric Tomasik, Ninemile District Ranger, Lolo National Forest.

Alternative A (No Action) is the only alternative that does not violate the Endangered Species Act, National Forest Management Act, Administrative Procedure Act and other federal laws. We incorporate by reference our scoping comments from April 13, 2019.

Despite Forest Service characterizations of the Project, it is a **commercial timber sale**. The true, unstated purpose of the Project is to produce commercial saw logs. In fact, **3,000 truckloads of commercial saw logs amounting to over 14 million board feet of commercial timber harvest**. This is a very big project for any landscape, let alone one officially designated as a Demographic Connectivity Area for grizzly bears. The Forest Service is hiding behind "forest health" and "wildfire concerns." This pre-decisional bias towards commercial timber sales led the Forest Service to drop Alternative D from detailed consideration, which would have prevented new or temporary road construction. Moreover, the fact the Forest Service has already marked timber sale units prior to the end of the Objection Period shows there is no intention to alter anything in the Decision and EA. Further evidence of bias is shown by failure to modify the proposal or

analysis in light of its designation as a Demographic Connectivity Area, which occurred *after* scoping.

We were told by Seth Romacki, timber management staff (phone conversation 9/11/19), that orange paint indicates "leave" trees. We request written confirmation that this is correct. There is confusion over this issue that could have been avoided by waiting to mark trees until after the Objection Process is completed.

Moreover, we have no confidence the Forest Service will adhere to this Decision, as the commitments made under this Decision may be rescinded in subsequent projects. For example, the Soldier-Butler Decision rescinds the previous Forest Service commitment made in the Frenchtown Face Decision to decommission 37 miles of roads. What started as a citizen effort to improve the ecological health of this area has turned into a new decision that has overturned their agreement with the Forest Service. There is no scientific integrity behind the idea that a Demographic Connectivity Area can function at the level of roads and road density that existed in 2011, particularly when new permanent roads are added and old roads are maintained in the road system. This Decision will put further additional pressure on the grizzly bear and elk populations.

The Flathead-Lolo-Bitterroot Citizen Task Force

The Flathead-Lolo-Bitterroot Citizen Task Force is an incorporated Montana non-profit organization based in Missoula, Montana. Our organizational mission is to protect the natural features and conditions of the Northern Rockies area and specifically on the Flathead, Lolo and Bitterroot National Forests, its native fish and wildlife and their habitat, including Threatened and Endangered Species. We will work to protect the Wilderness and Wilderness Study Areas, the roadless areas, linkage habitats for wildlife and wild and scenic rivers and maintenance of the land's natural and primitive attributes for our continued use and enjoyment. We will function as a public benefit organization to help educate and inform the public on issues affecting our Area of Concern. We will formally and informally participate in the development of long term management plans for National Forests in our Area of Concern, formally and informally participate in grizzly bear recovery planning and challenge, when necessary, state and federal management plans through the formal appeals process and through litigation.

An Environmental Impact Statement is Required

Due to the scope of the proposed action and the major issues involved, a full Environmental Impact Statement must be prepared for this project to continue. The proposal includes treatments on 9,975 acres, 14.3 million board feet of timber harvest and 3,000 truckloads of logs, 9.4 miles of temporary road construction, 7 miles of new permanent road construction and reversing a decision to decommission 37 miles of roads within a designated Demographic Connectivity Area with serious reductions in grizzly bear secure habitat.

Moreover, the scoping for this project was insufficient and did not include critical issues. For example, the last scoping meeting was held in January of 2017, more than two years ago. Since that time the Ninemile area has been designated by the U.S. Fish and Wildlife Service as a Demographic Connectivity Area (Figure 1) for grizzly bears, meaning occupancy by female/cub groups. Public scoping was not taken on this major issue for regional grizzly bear recovery. The Ninemile is occupied grizzly bear habitat, as documented by Montana Fish, Wildlife & Parks.

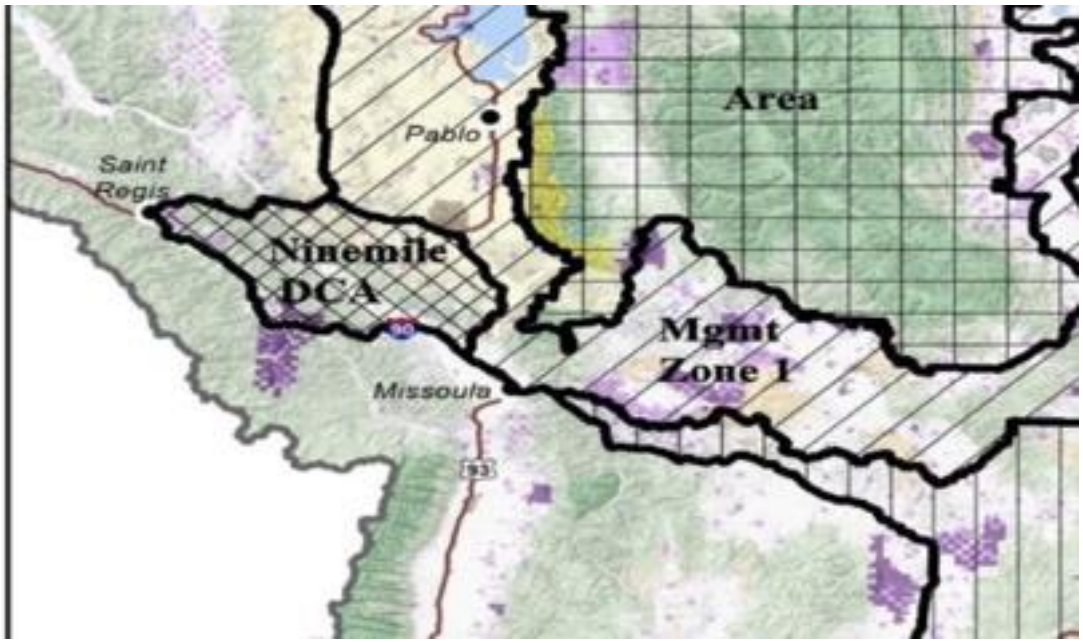

Figure 1. The Ninemile Demographic Connectivity Area. U.S. Fish & Wildlife Service 2018.

The EA fails to analyze the Project in the context of regional grizzly bear recovery. The Forest Service is a co-signer of the Conservation Strategy that established the Ninemile DCA, so it was fully aware of the change. However, it chose to not conduct scoping on this critical issue.

The ruling in Crow Tribe v. USA found the government must provide for connectivity between currently isolated grizzly bear populations. The Forest Service is not exempt from this obligation under the Endangered Species Act, National Forest Management Act, National Environmental Policy Act and Administrative Procedure Act.

Purpose and Need

The purpose and need in the EA do not justify the actions proposed nor are they based upon the best available scientific information, as required by the 2012 Planning Rule, NEPA and the ESA. Irretrievable commitments of resources are made without ecological or scientific justification. Moreover, there is no rational link between the decision made and the actions approved.

The EA claims 60-80% of the overstory will be removed to promote larch or ponderosa regeneration and at page 23 reveals the Project will exceed the 40 acre limit on cut openings.

By producing 3,000 truckloads of commercial logs, ***Soldier-Butler is a commercial timber sale.***

Soldier Creek/Burnt Fork Unit, September 6, 2019 showing the unit is not overgrown, has little deadfall and is easy to walk through.

The Response to Comments states the project purpose is not related to protecting private lands from wildfire risk, yet a review of the Project Map shows cutting units bordering private lands along the entire length of the Project Area. In fact, at page 2 of the EA it states:

> *" To the landowners and communities living within the WUI, this poses an extreme fire risk to human life and property… ".*

And at page 3 the EA states:

> *"The Soldier-Butler project area includes numerous residences mainly within the southwest portion. Within the project area there are approximately 17,670 acres under multiple ownerships that are deemed WUI; this equates to about 40% of the project area. Fuels treatments within 1.5 miles of private ownership are needed to reduce the potential for crown fire initiation and fire intensities. Many of these private lands are adjacent to or near NFS lands proposed for treatment in the Soldier-Butler project."*

The EA clearly stretches the common-sense definition of Wildland-Urban Interface. It also improperly cites to the 2005 Missoula County Wildfire Protection Plan which is no longer in effect.

The primary definition is an area within 0.5 miles of residential areas within the intermix zone. Common sense and reality dictate that occasional isolated residences in a very low-density setting cannot each be buffered to an extensive distance. Otherwise, much of the western U.S. would be classified as WUI, which is an unreasonable stretch of the primary definitions and intent. A statement that 40% of the Project Area is within the WUI is scientifically invalid. A previous collaborative project on Lolo National Forest land in the Rattlesnake drainage (Sawmill Gulch) relied on a much more realistic zone of 0.34 miles (Lolo National Forest 2004). Moreover, **the work of world-renowned fire scientist Dr. Jack Cohen shows the Structure Protection Zone extends little more than 100 feet from structures**. There is no scientific evidence that suggests commercial logging far from structures does anything to enhance their survivability in the event of fire. The Project Area is also upwind of prevailing southwest wind currents, which would tend to move fire *away* from the private lands in the Ninemile Valley and into more remote areas.

The issue of structure protection is a private lands issue. Ninemile residents can get cost-share grants from Missoula County to assist with making their homesites fire-wise.

Again, non-mechanical thinning and burning may be appropriate in certain areas, but it can only be effective in aiding structural protection if the treatments are immediately adjacent to residential areas and only if the structures themselves are made less flammable (Reinhardt, et al. 2008). This treatment area is exclusively on private lands.

Some of the major goals of the Project are thinning and burning of understory vegetation to promote fire safety, aid in future suppression and help prevent large catastrophic fire events. This strategy has been shown to be self-defeating by numerous researchers. For example, Reinhardt, et al. (2008) write:

> *"Treating fuels to facilitate suppression is an example of circular logic. If fuel treatment makes suppression more successful in general, then less area will be burned in the short run and more acreage will tend to burn under extreme conditions, when suppression is ineffective. The inevitable result is that more area is burned in fewer, more unmanageable events with greater consequences."*

They suggest a more successful approach is to focus on the area directly adjacent to structures and reduce the flammability of the structures themselves, writing at page 1999:

> *"Destruction in the WUI is primarily the result of the flammability of the residential areas themselves, rather than the flammability of the adjacent wildlands."*

The Forest Service has failed to present scientific evidence showing that logging reduces the chances of large fires. For example, the South Fork of Lolo Creek had been heavily logged for decades yet burned out of control.

Another problem is that once the primary objectives of a project are met (in this case commercial timber harvest), secondary objectives including burning slash and non-commercial timber may be abandoned, rendering the landscape more fire-prone that it was before the project.

The Project Will Harm Grizzly Bears

The grizzly bear analysis presented in the EA is insufficient, inaccurate and incomplete. The Ninemile area is a designated Demographic Connectivity Area (Costello, et al. 2016; U.S. Fish and Wildlife Service 2018). It is occupied grizzly bear habitat.

The EA at page 95 states that the Project is "Likely to Adversely Affect" grizzly bears. While the EA lists the U.S. Fish and Wildlife Service as one of the agencies, businesses, organizations and individuals consulted with, the EA presents no evidence of Formal Section 7 Consultation.

The EA significantly understates the level of grizzly bear activity documented by Montana Fish, Wildlife and Parks. The EA only lists the location of one female with cubs, just 2 miles from the project area and well within dispersal distances for female grizzly bears. In fact, numerous grizzly bears have been documented by trapping and radio-collaring, photographs and tracks in reports including the Montana Wildlife Quarterly 2017 and from Region 2 Bear Manager Jamie Jonkel. These include three female grizzly bears, and several other individual bears. Jonkel was quoted in the Missoulian newspaper (2019) that he has personally seen grizzly bears cross the Clark Fork River near the confluence with Ninemile Creek. Grizzly bears have been trapped on the Flathead Indian Reservation side of the Reservation Divide, directly adjacent to the Project Area.

In addition to these bears, several grizzly bears have been trapped and photographed in the Rattlesnake Mountains, adjacent to the Ninemile DCA and a route for grizzly bears moving from the NCDE Recovery Area to the Ninemile DCA.

The failure to adequately assess and protect the Ninemile DCA is a major weakness of the EA. Isolation was one of the factors identified in the 1975 listing rule for grizzly bears. Linkages in the Northern Rockies have been identified, analyzed and ranked by several sources using different methodology (Picton 1986; Walker and Craighead 1997; Bader 2000c.; Peck, et al. 2017).

Linkage is a key recovery goal in the Grizzly Bear Recovery Plan. The Recovery Plan also recommends that, until the linkages are analyzed, *"land management agencies take precautions not to degrade the potential linkage areas."* Recovery Plan at 24-26. Servheen, et al. (2001) wrote:

> *"Boyce, et al. (2001) have demonstrated the value of multiple populations with some dispersal between them to the survival of the grizzly bear in the Northern Rockies. For multiple populations to act to minimize the probability of extinction of the entire*

population of grizzly bears in the Northern Rockies, dispersal between different populations must have some acceptable probability of success. Thus, management of linkage zones to maintain and enhance movement opportunities is a critical part of the successful application of metapopulation theory to grizzly bear conservation."

The Interagency Grizzly Bear Committee endorsed these linkages in a letter signed by all members including the U.S. Forest Service (IGBC letter 2001, Re: Support for the concept of linkage zones). They wrote:

"To address the issue of habitat fragmentation, the IGBC supports the identification of those areas within and between the major grizzly bear ecosystems where wildlife can live or move between large blocks of relatively secure habitat. Cooperation and coordination between public land managers, fish and game agencies, private landowners, and state and federal transportation agencies is required to maintain linkage zones that work for wildlife. Wildlife habitat conservation and the eventual recovery of listed species such as grizzly bears will require connections between populations."

Thus, grizzly bear survival and eventual recovery is dependent on demographic linkages where male and female bears can successfully live and move.

The IGBC also wrote:

"Dramatic changes are occurring in the remaining possible linkage areas due to ongoing human development. Time to maintain connection opportunities is growing short due to the pace of development on these lands."

However, actions and precautions are not included in the EA. Despite these official policies, the Project would significantly degrade the ability of this area to function as a Demographic Connectivity Area.

Moreover, the ruling in Crow Indian Tribe, et al. v. United States of America, et al. (Case 9:17-cv-00089-DLC Document 266, Filed 09/24/18) established that the U.S. Fish and Wildlife Service must ensure connectivity between isolated grizzly bear subpopulations. These connections are primarily on Forest Service lands and the Forest Service shares obligations under the ESA.

The Grizzly Bear Habitat Shell Game

The Response to Comments tries to evade its direct connection to the Grizzly Bear Conservation Strategy and the Four Forest Plan Amendments for Grizzly Bear Habitat Management. The Soldier-Butler Project implements the Plan Amendments through an on-the-ground action.

As the Forest Service is well aware, the standards in the Plan Amendments were authored by the Flathead National Forest. These standards are currently under legal challenge in the federal

court system. The Response to Comments disingenuously states that comments on the standards are beyond the scope of the Soldier-Butler Project. The Forest Service can't have it both ways: it wants to say the Project complies with the Conservation Strategy and Plan Amendments, but then claims these issues are beyond the scope of the EA and Decision Notice. The Forest Service citing itself as the sole scientific expert on the best road and trail standards for grizzly bears is contrary to the scientific record and the best available scientific data.

The 2011 baseline is a rearview mirror approach to grizzly bear recovery. It will not sustain or build upon 25 years of progress. Rather, it takes several steps back. The Four Forest Plan Amendments for Grizzly Bear Habitat Management have so many exemptions, exceptions and interpretations that it cannot be an effective, enforceable plan that can be subjected to rigorous scientific review. Therefore, Soldier-Butler, the fruit of this shell game, is inextricably linked.

Baseline changes that exceed 2011 conditions may be made by "conservation partners" (U.S. Forest Service, Tribes, Montana Dept. of State Lands) without consulting with the U.S. Fish and Wildlife Service. Thus, violations of secure core that depart from 2011 conditions are built into the process. For example, the EA reveals that secure habitat for grizzly bears will be reduced by 20% over an 8-10 year period. It attempts to rationalize this impact by stating grizzly bears will simply move somewhere else.

The Decision Exacerbates the Road Problem in the Ninemile DCA

The road density analysis in the EA is seriously flawed. It improperly interprets the Boulanger and Stenhouse (2014) analysis. The upper limit of their findings translate to an open road density of $\approx 2.4 mi/mi^2$. Note this is different than total road density, which may include resource roads used for timber hauling and other activity but closed to the public, such as those described in the EA. As the EA reveals, these roads are expected to have the same level of impacts as those of roads open to public use.

The Response to Comments makes the charge that no such statement was made in the EA. However, at page 105 of the EA, the caption for Figure 16 states:

> "*Open" road densities in the project area, considering roads open to public motorized use as well as roads closed to public but used for timber haul and high-level administrative use during project implementation.* ***The latter may cause disturbance to grizzly bears similar to open public roads."*** (emphasis provided).

In fact, the level of traffic on these "administrative roads" will often exceed the baseline traffic on roads open to the public, increasing the road density effect.

The EA findings are totally inconsistent with decades of research on road effects on grizzly bear habitat use in coniferous forest regions west of the Continental Divide. These studies consistently found grizzly bears generally avoid areas within 500 m of roads more than

expected and this zone of avoidance ranges up to 3 km (Mattson, et al. 1987; Kasworm and Manley, 1990; McLellan and Shackleton, 1988; Archibald, et al., 1987; Wakkinen and Kasworm, 1997; Mattson 1993; Craighead, et al. 1995; Mace and Waller 1998; Metzgar 1998; Auditor General of British Columbia 2017). A comprehensive analysis is contained in MacHutchon and Proctor (2015). The human population in the Boulanger and Stenhouse study area is low density and does not compare with the levels of road use in the densely populated Missoula County, with over 100,000 residents and a major tourism hub. Sole reliance on the Boulanger and Stenhouse analysis is arbitrary and capricious given there is data available from the adjacent Flathead National Forest, the Cabinet-Yaak and other areas west of the Continental Divide. Even so, they identified 1.2mi/mi^2 as a maximum road density to support female occupancy and reproduction.

The following graphs from their report show the lethal effect road densities have on female/cub groups. Converted to miles, at ≈ 2.3mi/mi^2, female/cub survival drops to ≈ 50%. Habitat effectiveness suffers even more drastic reductions. In fact, McClellan reports that 82% of all grizzly bear mortalities over a 30-year period occurred within 120m (394 feet) of a road.

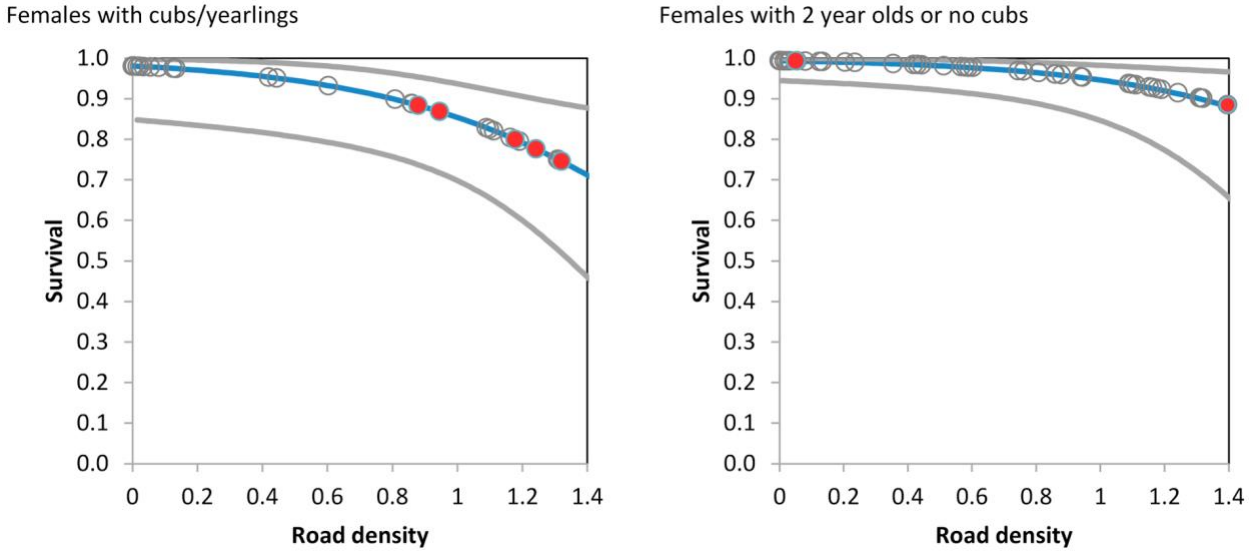

Figure 2. Road density effects on grizzly bear female-cub survival. Source: Boulanger and Stenhouse (2014).

The EA states that average road density across the entire DCA is 2mi/mi^2, well above what can support grizzly bears. However, measuring across the entire DCA is not how road density is properly calculated as it includes roadless areas and obscures high-density effects on a more local scale. Site-specific calculation of road density shows quite a different effect. The EA shows that actual road densities within the activity area would be 2.4-7.7 mi/mi^2 as shown in Figure 3.

At these road densities a large portion of the project area will effectively become unavailable to grizzly bears as mortality risk to female-cub groups will be unsustainable and defeats the purpose of the Ninemile DCA. The EA estimates a 20% reduction in secure habitat, but that underestimates the actual project effects as that figure is averaged over the entire project area.

Based upon the map, it appears that grizzly bear use will be practically eliminated across the lower half of the Project Area.

Figure 3. Road Density Under Selected Alternative. These densities in the red area range from 2.4-7.7 mi/mi^2, totally lethal for grizzly bears.

Moreover, due to the extensive geographic scope of the activity area from Soldier Creek to the east of Butler Creek and up every drainage bottom to mid and upper elevations, grizzly bear use will be displaced from primary Spring and Fall habitat. The EA concedes this at page 106, where it states:

> *"The effects of reducing security for grizzly bears during project implementation is similar to the effects discussed with open road densities. Bears may become disturbed and/or displaced from areas, causing them to have to seek other areas to obtain necessary resources. This can cause stress to individuals, and in some cases may lead to lower fitness. Because most of the security areas that would be affected are in lower elevations where bears are likely to forage in spring and fall, the effects would be felt more in those seasons."*

The Forest Service has received extensive comments on these issues from Dr. Lee Metzgar, a population ecologist and former director of the University of Montana Wildlife Biology Program (Metzgar 1998). His findings on road densities within the roaded matrix align closely with those of Mattson (1993) and Craighead, et al. (1995) and should not exceed ≈ 0.25mi/mi^2 (0.4km/km^2) to support female-cub groups. The British Columbia Auditor General Report (2017) and Lamb, et al. (2018) found grizzly bear density was significantly lower in areas with road density exceeding 0.6km/km^2.

The EA concedes that female grizzly bear use will be deterred as it states at page 111:

> *"Overall the project… allows for occupancy of the area (**at least in the long-term**) by female grizzly bears."* (emphasis provided).

There is no provision in the ESA or NFMA that allows protection of biological diversity or threatened species to be put off until some unknown future date. The Forest Service has already reneged on its commitment to decommission roads in the Frenchtown Face Project

Area, which overlaps the Soldier-Butler Project Area. When it signed onto the Conservation Strategy establishing the Ninemile Demographic Connectivity Area, the Forest Service knew it was responsible for maintaining and restoring conditions conducive to supporting female-cub residential occupancy. Instead, in this case the Forest Service simply ignored this as a major scoping issue and went forward with its pre-designation plans. The EA is not responsive to new and changing conditions, rendering it woefully deficient.

Impacts on Grizzly Bear Denning Habitat

The EA contains no discussion of the potential impacts on grizzly bear denning habitat and den site selection even though the Project will include winter activity. The Response to Comments acknowledges this and attempts to back-fill on this issue, without amending the EA.

Linnell, et al. (2002) report that bears generally select dens 1-2km from human activity such as roads, habitations and industrial activity. Ciarniello, et al. (2005) found grizzly bears avoid roads when selecting den sites. Pigeon, et al. (2014) found den selection dropped by 30% at road density 1mi/mi_2 (0.6km/km_2); reduced by 70% at ≈ 2mi/mi_2 (1.2km/km_2) and reduced to ≈ zero at 3.2mi/mi_2 (2km/km_2).

Activity within 200m can cause den abandonment leading to increased cub mortality. Impacts short of den abandonment include physiological changes such as increased heart and breathing rate and wakefulness (Fortin, et al. 2016).

Attached to these comments is a report from Bader and Phelan (2019) that finds that denning habitat is limited in the Ninemile DCA and impacted and fragmented by roads and trails. They write:

> *"the Soldier-Butler and Redd Bull projects are likely to have a negative impact on available grizzly bear denning habitat due to their incursions into high elevation Inventoried Roadless Areas as part of larger timber sale and associated roadbuilding programs that include winter activity. The increased and high frequency industrial activity and sound from tree and brush cutting, large truck traffic, frequent smaller vehicle traffic and loss of cover will displace grizzly bears from project areas in the Spring-Fall period forcing them to establish new home ranges and other potential denning areas."*

A map of their results for the Ninemile area are shown below in Figure 4. A significant amount of denning habitat in the Project Area has already been made unsuitable by high road and trail density. The Project will make this situation worse. This fragmentation of the eastern portion of the DCA threatens the connection to the Rattlesnake Mountains and the NCDE by creating barriers to grizzly bear movements.

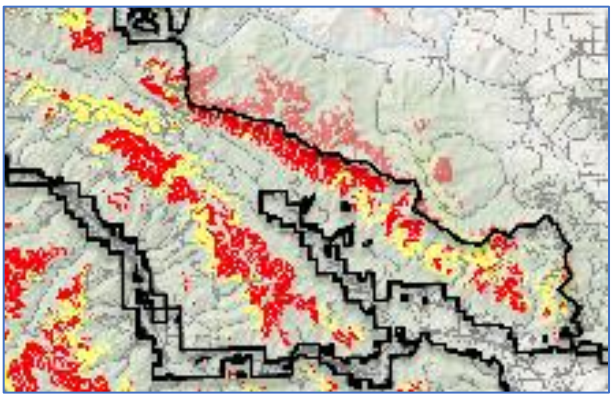

Figure 4. Denning habitat in the Ninemile area, shown in red. Yellow areas are disturbed and unsuitable denning habitat. Source: Bader and Phelan (2019).

Therefore, any additional loss of available denning habitat would be a limiting factor on the ability of the area to support residential occupancy by grizzly bears, including females with cubs. The Project will also impact denning habitat by conducting an Ecosystem Management Burn within an Inventoried Roadless Area that has denning habitat. Helicopter traffic, ground crews and post-fire planting crews will displace grizzly bears. By burning and removing cover, the denning habitat will be made unsuitable for many years.

The failure to analyze impacts on denning habitat is another deficiency of the EA.

Roads and Altered Habitat are Known Barriers to Grizzly Bears and Other Wildlife

At page 96 the EA makes the unsubstantiated claim that "human-made barriers to connectivity are also low" and "the need for corridors is minimal." However, the Forest Service has previously documented that:

> "*Altered habitat* ***<u>can create impermeable barriers to wildlife movement</u>****; populations limited to habitat islands are at increased risk of extinction."* (emphasis provided; Bitterroot, Flathead and Lolo National Forests 2004).

The project area currently has hundreds of miles of human-made roads and extensive motorized access trails. The proposed action would build an additional 16.4 miles of road while also reversing a previous decision to decommission 37 miles of road. Roads and high road densities are known to be barriers to grizzly bear movements as bears avoid these areas and must go around them or be subject to high mortality risk.

Assessment of Cumulative Effects Deficient

The Project Area is an insufficient area for assessment of cumulative effects. For example, the Flathead Reservation portion of the Ninemile DCA also has high road and motorized trail densities. By adding to the road network, the proposed action, in concert with the high density

on the Reservation, is detrimental to grizzly bear connectivity in the Ninemile DCA. The Project Area also overlaps with the Frenchtown Face Project and it's activity. At the least the area for analysis should be the bounds of the Demographic Connectivity Area.

The project makes irretrievable commitments of resources well beyond the life of the project. The decision to retain 7 miles of newly constructed road for future management activity and the decision to reverse the decommissioning of 37 miles of road leads to a net gain of 44 miles of roads, a permanent loss of grizzly bear habitat. The Response to Comments claims since these roads will be closed to the public they don't count. However, they are open to administrative use, can be opened at any time and may be subject to illegal use. Given the Forest Service track record of rescinding previous commitments, the idea these roads will remain closed to public use is suspect.

The Soldier-Butler Project will deter grizzly bear occupancy and movement towards the Selway-Bitterroot and Cabinet-Yaak regions and defeat the major purpose of the Ninemile DCA. The project represents an illegal taking of grizzly bear habitat, in violation of the Endangered Species Act. A full Environmental Impact Statement is required for this project to move forward.

Elk

Elk have similar responses to roads as grizzly bears and the discussion above regarding roads applies to elk. The EA also discloses the project would violate Forest Plan standards for thermal cover for elk. The EA does not contain a valid analysis of the effects of road densities, disturbance and loss of cover on elk. The plan to create widely scattered small clumps of vegetation adjacent to roads is totally inadequate. Going back to the Montana Cooperative Elk-Logging Study, it has been well known that logging and roadbuilding impact elk populations. Moreover, renowned Forest Service biologist Dr. L. Jack Lyon documented the serious impact of road density on elk habitat use, shown in Figure 4. At 1mi/mi^2, habitat use drops by 20%. At the densities outlined in the EA of 2.4-7.7 mi/mi^2, elk use would drop by approximately 40-90%. He wrote: "The area avoided increases where the density of tree cover is low." The Project envisions reducing tree canopy cover by up to 60-80% with burning and thinning of the understory on a total of approximately 10,000 acres.

The Response to Comments claims the Lyon studies are outdated science, without anything to back it up. What new science invalidates the findings of Dr. L. Jack Lyon and the Montana Cooperative Elk-Logging Study? These findings have been confirmed by many subsequent studies throughout the West. For example, Forest Service researchers (Rowland, et al. 2004) found elk totally avoided even closed roads during hunting seasons. They conclude there is a 100% loss of elk habitat of 5 acres per linear mile of road. Elk use and habitat effectiveness are reduced across a far larger acreage.

Elk are also displaced by recreational use of trails, including by ATVs, mountain bikers and hikers (Wisdom, et al. 2018). They concluded:

"Our results support the hypothesis that elk avoid trail-based recreation similarly to their avoidance of roads open to motorized traffic on public forests."

The EA did not include any assessment of recreational use impacts combined with the Project activity impacts. These cumulative effects must be analyzed.

Lynx

The analysis of effects on lynx is virtually non-existent. The EA simply assigns lynx habitat to Lynx Analysis Areas above 4100'. This is arbitrary and does not consider the need for linkages to facilitate lynx migrations (Squires, et al. 2013). The Ninemile area is likely an important linkage for lynx between the NCDE and Selway-Bitterroot areas.

Conclusion

As written and presented, the Decision on the Soldier-Butler Project violates the National Forest Management Act, the Endangered Species Act, National Environmental Policy Act and Administrative Procedure Act and is inconsistent with the Grizzly Bear Conservation Strategy. The Forest Service must either Select Alternative A, NO ACTION, or prepare a full Environmental Impact Statement that corrects the deficiencies described above.

Failure to remedy this situation is likely to lead to legal action.

Electronically Submitted and hand delivered by Michael Bader, 700 Longstaff Street, Missoula, MT 59801; 406-721-4835; mbader7@charter.net on behalf of:

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