the purpose of core habitat. This burning will reduce cover for grizzly bears, a species that likes dense cover (DEIS 271). Also, 230 acres of denning habitat will be destroyed with burning. These adverse impacts clearly do not represent "restoration" of ecosystem values.

7. Purpose for Project

A-Forest Health

The stated purpose for the Project is similar to what we addressed above, in that the public is being mislead as to the reason for the Project. The DEIS claims that the project will improve the long term health and reduce fuels, that it will enhance wildlife habitat by restoring aspen, and will improve forest health by reducing susceptibility to insects and disease; will restore tree species diversity to improve wildlife habitat, and will improve habitat and connectivity, and will move the area to a more health ecosystem. There was not a single quantitative measure as to how these various factors were measured by the agency, so that the public can understand what these claims actually mean. For example, how is forest health defined? It apparently does not include wildlife. As noted in the DEIS, a host of wildlife depend upon dead trees for nesting and foraging habitat. So removing dead trees killed by the pine beetle clearly will not improve forest health. For another example, the problem with current tree species diversity for wildlife was never defined. Why does it need to be changed, and what does it need to be changed to in order to address habitat problems for wildlife.

B-Conifers in aspen stands

Even logging aspen stands is not clearly a benefit to wildlife. Mixed aspen/conifer stands are known to be important for various wildlife species, including the threatened lynx. Conifers in aspen stands provide the larger class of snags needed by many wildlife species as well. The actual rationale for removing conifers from aspen was not provided. What level of canopy cover of conifers in aspen is being targeted for treatment? What level of conifer canopy cover is considered problematic for aspen viability? There was no inventory of a single aspen stand as to current condition. And as mentioned previously, the problem for aspen in the west appears to be largely destruction by livestock. Removal of livestock would be a valid restoration project for aspen and wildlife habitat. There was no proposal in the DEIS for this valid action.

C-Livestock and aspen

AS for the pine beetle, the research by Jones in Idaho (1991as cited in the bibliography) clearly demonstrated that fishers were selecting lodgepole pine stands in the winter that were infested with pine beetles, and were

falling apart. This created an abundant supply of logs, an important feature for fisher habitat.

D-Benefits of pine beetle

There has been research on the Helena National Forest regarding the benefits of the pine beetle to wildlife. Why is this research being ignored, and instead, the agency continues to claim that pine beetle infested areas need to be logged.

8. Cumulative Effects/Snag Habitat Analysis

There was no discussion in any of the wildlife sections as to the amount of logging that has already occurred in the Project Area, with the exception of the roadside hazard tree removal of 382 acres (DEIS 230). Yet past logging has been very extensive in this landscape, and it likely explains the shortage of habitat for almost all evaluated wildlife species in the Project Area (e.g., goshawk, pileated woodpecker, fisher, pine marten, elk security, habitat effectiveness). As is noted in the DEIS, for example at 217 notes that per FIA data, there are almost no snags in past logging units, clearcuts.

Past logging includes:

3,872 acres of clearcutting
373 acres of other types of harvest
822 acres of precommercial thinning
7,922 acres of fuels treatments

A - Logging and snag-associated wildlife

These past logged areas and fuels treatment areas were never mapped. So the public cannot see how they relate to the proposed additional logging. Of particular concern is the snag habitat within these thousands of acres of logged and treated habitats. There was no analysis of how these past logging area have affected snag-associated wildlife. This is a significant lack of analysis, as it shows that the agency has not taken a hard look at the proposed logging. If the impacts of past logging are unknown on over 25-30% of the forest wildlife that depends upon snags and logs, how can additional logging be planned?

The association between past and planned logging areas was also not addressed as per fragmentation of snag habitat. Since there are likely few to now snags in past harvest units, and also, most wildlife will not nest/roost/den in logged areas, the additional logging close to past logging

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areas will create large voids of snag habitat. It is not clear that there is any limit to the size of these habitat voids that the agency is planning. Also, what percentage of any localized landscape can lack snag habitat and still maintain viability of snag-associated wildlife? The only analysis of snags in the DEIS is a summary of the average snag densities across the entire landscape. This is a meaningless analysis, as any localized impacts of logging cannot ever show a change in snag habitat, since these changes will be washed out by the average over thousands of acres.

As noted by the DEIS at 258, fragmentation leads to smaller patch sizes and greater distances between habitats, and can decrease density and increase edge effects. How fragmented does forested snag habitat have to become before it is unsuitable for persistence of snag-associated wildlife?

The FIA data also overestimates snags, since this data was not taken in harvest units (DEIS 220).

B Lack of snags

The retention of several snags per acre in harvest units, as is claimed to be implemented for the Project (e.g, DEIS 217), will not maintain forested snag habitat for wildlife. It will not even maintain snags for those species that will nest in clearcuts, or partially-logged areas. As is noted in the DEIS, any snags left in units will fall within several up to 14 years (DEEIS xi). This means that for the majority of the next 100 years, there will be no snags in harvest units, or snags that are at least 10 inches dbh, as is the minimum recommended size of snags as per the current best science. Yet there was no analysis in the DEIS as to what this lack of snags will do for viability of associated species.

The claim that the project will actually increase snags is based on the prescribed burning that is planned to kill many acres of forest. These forests will produce and retain snags even if they aren't burned, while burning will destroy the forests for a host of vulnerable wildlife species. So it is an improbable claim that burning the forest to create more snags will benefit wildlife, and balance out the loss of snags in harvest units. In addition, many species of wildlife will not nest in burned forests, just as they do not nest in harvest units. So there is no point in burning a forest to create snags, and most snag-associated species will not benefit from this.

The DEIS at 245 claims that the agency is following the Northern Region Snag Protocol, including that developed for the eastside forests. There is no

analysis provided as to what the Protocol requires, or how this is consistent with the Helena Forest Plan snag direction. They are not the same, so how can the agency follow both? If an agency claims they are using certain management recommendations in a DEIS/EIS, then these recommendations must be followed, or the public is being mislead. Please define what implementation of the Northern Region Snag Protocol entails, and if you are using it. If not, why not? Isn't this Protocol the current best science?

C -Availability of large snags

Large snags are the most limiting on the landscape, and are the most important to wildlife. The impact of the project on treated acres on short and long term availability of large snags was never addressed in the DEIS.

D -Snags and MIS

E - Old growth and MIS

The claim that the Project will meet the Forest Plan snag direction is meaningless for most wildlife species, including the pileated woodpecker and hairy woodpeckers, both MIS for the Forest. Neither species will nest in harvest units in general, as they require relatively high canopy cover and a high density of larger snags (more than 2 smaller snags per acre). The Helena Forest Plan has no management direction for cavity-nesting species that will not nest in harvest units, except for old growth habitat. And this standard is for only 5% habitat, while at least 20 % old growth is recommended for the pileated woodpecker. So the Forest Plan has no conservation strategy for the MIS pileated woodpecker.

9. Roads

A-Open road density

The open road density within the two lynx analysis units (LAUs) is stated in the DESI at 266 to be 2.8 miles per section in BL-07, and 1.9 in BL-08. The open road density for elk is stated to be 1.69 and 1.74 for the two impacted herd units (Beaver Creek and Keep Cool) (DEIS 450). The Forest Plan at II/19 requires that the open road density in grizzly bear recovery habitat be no greater than 0.55 miles per section. The 2006 BiOp for Recovery Habitat at page 23 notes that the open road density for the Arrasta subunit is 0.47 miles per section, and for the Red Mountain subunit, 0.36 miles per section. This seems unusual given that the open road densities in the overlapping LAUs are much, much higher. This discrepancy was never addressed. Nor was the likely increase in open road density during Project implementation ever addressed.

The mitigation measures in the DEIS at 55 note that the Project will require use of closed and restricted roads. Yet there is no actual description of how

many miles of each of these types of roads will be used, or how much it will increase open road density during Project implementation. The assumption seems to be that as long as the public is not allowed on these closed/restricted roads, they do not count as open motorized routes for elk and grizzly bears. The science for this assumption needs to be provided. The grizzly bear management guidelines for the NCDE define an open road as more than 1 vehicle trip per day for a season, which will clearly include logging roads.

B-Grizzly Bear Consultation

The agency failed to complete formal consultation for the Project for grizzly bears, or obtain an incidental take statement from the USFWS, for the Project. The agency claims (e.g., xv, 405) that the project is not likely to adversely impact bears. Yet as noted above, a considerable number of restricted and closed roads will be used for the Project. Thus the open road density will increase, and thus will trigger higher adverse impacts for the bear than already exist in this Northern Continental Divide Ecosystem (NCDE), for the Arrasta and Red Mountain grizzly bear subunits of the Landers Fork Bear Management Unit (BMU).

C-Consultation Arrasta and Red Mtn.

The agency also failed to complete formal consultation for the Project to address the planned violations of the 19-19-68 recommendations for management of the two affected subunits, Arrasta and Red Mountain. Although partial adherence to these recommendations was allowed in the 2006 BiOp, adherence to these recommendations is not currently being met, and will clearly not be met during project implementation.

10. Grizzly Bear

A-Formal Consultation

As noted above, if the Project violates the open road density standard for grizzly bears in Recovery Habitat, this would qualify as an adverse impact. It is questionable whether the agency will actually meet this standard. This alone would trigger consultation and an project incidental take statement. Consultation is also required because there will be an increase in open road density during Project implementation, over existing conditions. Formal consultation is also required because the Forest is violating the incidental take permitted for the Arrasta and Red Mountain subunits at present, and this violation will be exacerbated with Project implementation.

In 2006, the USFWS provided a biological opinion (BiOp) for grizzly bear recovery habitat on the Helena National Forest. This BiOp defined the level