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April 18, 2025

Reviewing Officer

Forest Service, Northern Region

Attn: Bonanza Project

26 Fort Missoula Road

Missoula, MT 59804

**RE: OBJECTION AGAINST THE BONANZA PROJECT ON THE
HELENA-LEWIS AND CLARK NATIONAL FOREST**

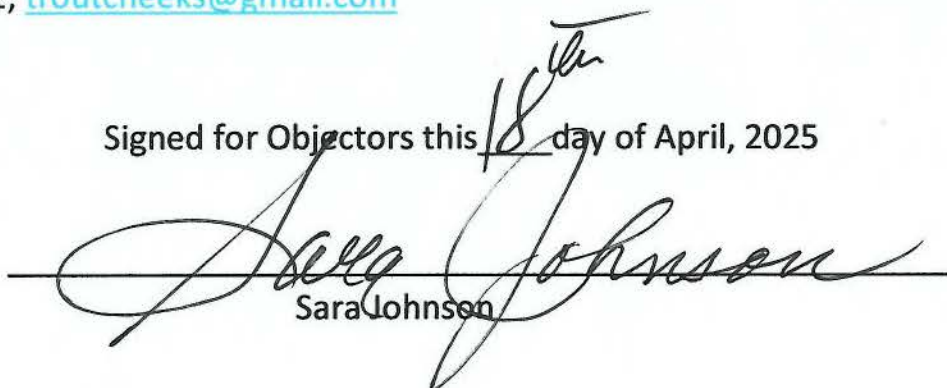
1. Objectors

Sara Johnson, Lead Objector, Native Ecosystems Council, PO Box 125, Willow Creek, MT 59760; phone 406-459-5936; sjohnsonkoa@yahoo.com.

Mike Garrity, Director, Alliance for the Wild Rockies, PO Box 505, Helena, MT 59624; phone 406-410-3373; wildrockies@gmail.com.

Steve Kelly, Director, Council on Wildlife and Fish, PO Box 4641, Bozeman, MT 59772; troutcheeks@gmail.com

Signed for Objectors this 18th day of April, 2025


Sara Johnson

2. Name and Location of Project

Bonanza Project on the Belt Creek-White Sulphur Ranger District of the Lewis and Clark National Forest

3. Responsible Official

Helen Smith, District Ranger for the Belt Creek-White Sulphur Ranger District

4. Attachments

This Objection includes 5 attachments. Attachment #1 includes 2 Montana Outdoors articles on wildlife dependent upon snags, and a description of Montana's 15 owl species. Attachment #2 includes a series of many reports addressing goshawk monitoring on the Lewis and Clark National Forest, including colored aerial photos of known goshawk nesting areas in the Bonanza Project Area. Attachment #3 includes a copy of the Forest Service "Eastside Assessment" produced in 2013 with collaborative recommendations for elk management, including on the Helena and Lewis and Clark National Forest. Attachment #4 includes some portions of the 2018 Castle Mountains Restoration Project DEIS. And Attachment #5 includes relevant portions of 40 reports and/or publications that address issues and concerns raised in this Objection.

5. Connection between Objection and Previous Public Involvement by Objectors

On September 4, 2024, Objectors submitted joint comments on the first public involvement opportunity provided for the Bonanza Project, which was a Preliminary Environmental Assessment. We are incorporating these expansive comments into this Objection in order to avoid repetition. In this regard, we have

expanded on some issues and concerns raised, as well as responding to the Forest Service's response to comments. In brief, the issues we are incorporating into this objection include a reduced opportunity for public involvement due to the lack of a scoping period; the Desired Conditions (DCs) being implemented in the Revised Forest Plan (RFP) lack any clear design and consistency for the Bonanza Project; the Historic Range of Variability (HRV) lacks any valid ecological meaning; the vegetation DCs conflict strongly with elk management by requiring vast amounts of roads and massive loss of hiding cover, habitat effectiveness, and security; the DCs for vegetation lack any requirements for old growth forests and the 20 bird species associated with old growth forests; the agency falsely claims no lodgepole pine old growth is being harvested; vegetation DCs do not measure goshawk habitat quality; old growth habitat within PFAs is not identified; Douglas-fir old growth will be destroyed with thinning, and reduce goshawk foraging habitat; goshawk population declines on the Lewis and Clark National Forest are not addressed in the Bonanza Project, nor are other expected impacts on goshawks in other forest projects addressed as per cumulative effects; the failure of the RFP to continue goshawk monitoring was never addressed in those planning documents, especially as proposed management in the RFP will adversely impact goshawks; the HLC RFP fails to provide for a diversity of wildlife species associated with snags, including 22 bird species; the snag management direction in the RFP was carried over from the 1986 forest plans for both forests without any demonstration of its validity in conserving wildlife, including a complete failure of either forest to monitor cavity-associated wildlife during the respective previous planning periods; the vegetation DCs do not address the needs to provide vast forest stands with high conifer seed production for at least 25 species of forest birds that rely on conifer seeds for persistence; the vegetation DCs do not address the need for mixed severity fire for a large number of forest wildlife species; the vegetation DCs do not ensure habitat will be adequate for 17 species of birds that are forest generalists; we totaled 73 species of western forest birds highly dependent upon old growth, snags, conifer seed, burned forest, and general forest habitat that have no habitat objectives provided by vegetation DCs; we noted that clearcutting does not represent a natural condition, while having severe impacts on wildlife species without these impacts ever being evaluated in the HLC RFP FEIS; we noted that agency rationales for clearcutting lodgepole pine forests because beetles have created "openings" is a violation of the NEPA and

the APA as this impact does not ever actually occur; we noted that the RFP FEIS as well as the Bonanza Project documents do not evaluate the impact that clearcuts have on local climatic conditions that trigger adverse impacts to almost all wildlife; the Bonanza Project NEPA documents did not address the cumulative adverse impacts that will occur in the project area due to the upcoming Forest-wide prescribed burning program, where 800-1200 acres in the Castles will be burned annually.

As noted previously, we are expanding on some of these issues in this Objection, as well as supporting our issues and concerns with references provided in Attachments 1-5.

6. Remedy

Due to the failings of the HLC RFP to ensure that a diversity of wildlife will be maintained across the HLC as this plan is implemented, including within the Bonanza Project Area, we are requesting this project be withdrawn in planning until the severe deficiencies of the HLC RFP are corrected via a revision and/or amendments. Both the HLC RFP and the Bonanza Project are, or will trigger violations of the National Environmental Policy Act (NEPA), the National Forest Management Act (NFMA), the 2012 Planning Rule, the Administrative Procedures Act (APA), the Migratory Bird Treaty Act (MBTA), and the Endangered Species Act (ESA). In addition, what miniscule guidance the HLC RFP currently contains for wildlife will be violated for big game species, while a false impression is provided by the plan for surveys for forest raptors that is misleading the public about agency management practices. In addition, the Bonanza project requires completion of formal consultation with the U.S. Fish and Wildlife Service for significant habitat degradation that will occur to the threatened wolverine due to climate effects.

7. Laws, Regulations and/or Policy that Objectors believe will be violated if the HLC RFP is implemented for the Bonanza Project.

A. The implementation of the HLC RFP for the Bonanza Project will trigger violations of the NEPA, the NFMA, the APA, the 2012 Planning Rule, the ESA, and the MBTA.

1. There was no valid analysis of project and cumulative impacts to the Northern Goshawk (hereafter "goshawk").

The Castle Mountains is important goshawk habitat. As was noted in the Castle Mountains Restoration Project Draft Environmental Impact Statement (2018) (provided in Attachment #4 of this Objection), there are at least 11 identified goshawk territories in the Castle Mountains, with a potential for up to 16. These include the following:

Pasture Gulch: discovered in 1985

West Fork Flagstaff: discovered in 2014

Townsend Gulch: discovered in 1986

Checkerboard Norther: discovered in 2014

North Fork Whetstone: discovered in 2015

West Fork Cooper Creek: discovered in 2015

Reynolds Creek: discovered in 2015

Warm Springs Creek: discovered in 2015

Grasshopper Creek; discovered in 2004

South Fork Willow Creek: discovered in 2015

Richardson Creek: discovered in 2016

The discovery dates for these territories is provided in the final 2016 monitoring summary for goshawks provided in Attachment #2 of this Objection.

The Bonanza Project will directly affect 2 of these territories, Pasture Gulch and West Fork Flagstaff Creek. Maps of these territories are provided in Attachment #2 of this Objection. The West Fork Flagstaff Creek territory has the postfledging area (PFA) mapped, and no treatments are proposed in this PFA; no acreage is provided for this PFA. Although no PFA is mapped for the Pasture Gulch territory, no treatments will apparently occur within what is likely the PFA. This PFA has been previously mapped, although not mapped for the Bonanza Project; it is reported to be 396 acres (USDA 2018). This exclusion of treatments within the PFA is consistent with the monitoring report by the Lewis and Clark National Forest (USDA 2004) where PFA habitat was measured in various goshawk territories on the forest, which showed that goshawks were selecting PFAs with an average of 11% grassland, 2% clearcuts/seedlings, 1% saplings, 14 percent old forest, and 68% coniferous forest. Maintenance of dense mature coniferous forests that provide key foraging sites for goshawks fledglings is also consistent with an unpublished forest report by Victor Murphy (October 2014) that PFAs are highly sensitive to disturbances and need protection as a result; these areas not only provide key foraging opportunities for young goshawks, but also provide thermal cover from severe weather, and hiding cover from predators (Id.).

Due to the protection of PFAs of the 2 goshawk nests that occur in the Bonanza Project Area, there will be no direct adverse effects to the PFAs in these 2 territories as a result of this project. However, the HLC is proposing a forest-wide prescribed burning program, that will include treatments from 800-1200 acres per year in the Castle Mountains. Although the agency determined that these treatments will not significantly impact goshawks, there are no identified protections of the 9 PFAs for the 9 other known goshawk territories in the Castle Mountains. All 9 of these goshawk territories could thus be adversely impacted by

the Forest-wide burning proposal. The impact of these adverse impacts will be unknown, as the Lewis and Clark National Forest stopped monitoring the goshawk use of most of these 11 territories in 2017, although the Forest Plan was in effect up to October of 2021. During that period, Johnson (2024) received goshawk monitoring information from a FOIA, and found that goshawk nesting activities had declined significantly following 2016. Due to the agency's failure to complete Forest Plan monitoring requirements subsequent to 2016, the population status of goshawks in the Castle Mountains is unknown. Prior to 2016, it was noted that this goshawk population in the Castle Mountains had been consistently producing fledglings, with some variation between territories (USDA 2018). Following 2016, we could find monitoring results for only 2 of these territories. This included monitoring of the West Fork of Flagstaff from 2017 through 2022, and monitoring of the Pasture Gulch territory 2017, 2020, and 2022.

As was noted in the Castle Mountains Restoration Project Proposal (2018) at page 495, prescribed fire and fuels reduction treatments within goshawk PFA would reduce stocking density and canopy cover which would result in a slight reduction of the quality of the PFA habitat to complete removal of patches of goshawk habitat. In particular, prescribed burning of PFAs will degrade old growth forests by removing the understory vegetation characteristic of old growth. Whitford (1991) noted that Douglas-fir old growth on the Lewis and Clark National Forest predominately has more than one canopy layer, averaged 206 small trees per acre, and has a mean seedling density of 413 per acre; burning out this understory would eliminate these important features of Douglas-fir old growth. It would also remove snowshoe hare habitat, an important prey species for goshawks (Murphy 2014, Johnson 2015). AS noted by Clough (2000), snowshoe hares depend upon dense understories for persistence.

Although PFAs will be protected in the Bonanza Project, goshawk foraging habitat will not be protected. There was no actual analysis as to how the proposed clearcutting will affect foraging habitat for the West Fork Flagstaff territory. There will be 1,012 acres of clearcutting in this territory. This would be removal of goshawk foraging habitat on up to 20% of the territory, if this territory is estimated at 5,000 acres (USDA 2018). On average, the Castle Mountains

landscape of 80,000 acres is approximately 25% meadows and openings (Id at 483). The current best science, the Southwest Goshawk guidelines (Reynolds et al. 1992) is noted as a reasonable management approach to the Lewis and Clark National Forest (USDA 2004); these guidelines are summarized in USDA 2004 as follows: 10% grass/forb/shrub stage, 10% seedling/sapling state, 20% young forest, 20% mid-aged forest, 20% mature forest, and 20% old forest. The Castle Mountains is already quite open in the eastern portion, as is noted by the PFA map for the West Fork Flagstaff territory (Objection Attachment #2). So clearcutting another 20% of this territory will push the lack of foraging habitat up to 40 or more percent. Clearcuts do not provide foraging habitat for goshawks if they are over 200 feet in width (USDA 1990), or over 4 acres in size (Reynolds et al. 1992). As was noted by Forest Service biologist Murphy (2014) in his unpublished paper on goshawks, their main prey include squirrels, snowshoe hares, gray jays, woodpeckers, and grouse. Habitat for these species does not occur in clearcuts. The lack of foraging values in clearcuts on the HLC is also demonstrated by the paucity of clearcuts found in goshawk PFAs where high quality foraging habitat is needed for fledglings to begin learning to hunt. These average only 4% (USDA 2004). There has also been specific research on the impact of clearcuts on goshawks in Montana. Clough (2000) found that as the percentage of clearcuts close to a goshawk nesting area increased, the productivity of that nest decreased. Clough (2000) also reported that two of the major prey species for goshawks in her study area were red squirrels and snowshoe hares; it was noted that in her study area, snowshoe hares also required dense horizontal cover, which would not be present in clearcuts for many years. Finally, Victor Murphy suspects that goshawks rotate their territories every several years as the prey gets hunted out (Johnson 2015). The availability of sufficient prey to raise goshawks may be an important factor in the high variability of goshawk nesting activity within territories from year to year (Horsefly SEA 2024).

There was also no analysis of the Bonanza Project impacts on goshawk habitat in general. It has been demonstrated in research that as forest habitats decrease and/or open up, the competitive advantage changes from goshawks to the Red-tailed Hawk (La Sorte et al. 2004). Given the already open landscape of the

eastern Castles (likely more than 25% openings), the impact on goshawks with additional opening of 1,012 acres would seem to be quite adverse. The expected change in the West Fork Flagstaff goshawk territory as per the impact of additional openings on replacement of goshawks with Red-tailed Hawks was never addressed. Currently, competition between goshawks and Red-tailed Hawks has been noted (Murphy 2014).

Since the Lewis and Clark National Forest did not monitor almost all the goshawks nests in the Castle Mountains during that planning period that ended in October of 2021, the impact of the adverse impacts the Bonanza and Forest-wide burning program will have on goshawk populations is unknown. As such, the agency has no basis for claiming direct, indirect and cumulative impacts will not significantly impact this local population.

2. The agency has provided a false assessment of project impacts on old growth forests; claims that no old growth forests will be logged are not supported with any data.

The agency claims that no old growth will be logged in the Bonanza Project. This is highly likely to be false, as 1,012 acres of lodgepole pine forests will be clearcut. An example of these lodgepole pine stands is provided on the cover of the Bonanza Draft EA. The agency did not demonstrate how it was determined that none of these 1,012 acres of lodgepole pine to be clearcut are not currently old growth, or at least "early seral old growth." Various stages of old growth have been defined on the Lewis and Clark Forest by Whitford (1991), who noted that there is a progressive development of old growth from early up through old old growth, with all these stages having value to old growth associated species. This same recognition of various stages of old growth forests was noted by Hamilton (1993), where he defines early phase old growth as: has seral species as the overstory canopy (if seral species are present), with climax tree species of various sizes in an understory; snags are starting to develop with some large down woody material present; only occasional openings are beginning to develop; late

phase old growth is where all seral species in the overstory have been replaced by climax species; the understory contains various sizes of climax tree species; usually large amounts of down woody materials are present, and most of the seral species snags have fallen to the ground; the stand may appear very patchy with many small openings containing seedlings/saplings and tall brush.

One of the key values of old growth is a high density of snags. As we noted in our PEA comments, there are at least 22 forest birds likely present on the HLC that depend upon snags as habitat (USDA 2018). The MFWP reported in a Montana Outdoors article that up to 60 wildlife species depend upon snags (Horowitz 2023). The mountain pine beetle clearly promotes snag habitat for wildlife. And the age of a given lodgepole pine stand infested with beetles is irrelevant as per the availability of snags. The actual stand structure as a determinant for habitat for old-growth associated wildlife has been noted by Chapin et al. (1997); this article noted that the stand structural complexity for pine marten was more important than the age of the stand as per habitat values.

The HLC appears to have arbitrarily determined that the lodgepole pine stands to be clearcut in the Bonanza Project are not either early seral or old-phase old growth for wildlife. No documentation exists as per surveys of these stands as per old growth criteria by Green et al. (1991); these criteria require 12 trees per acre at least 10 inches dbh, large trees at least 150 years in age, a basal area of 50 square feet or more; the average age of sampled stands on eastside forests was 173 years in age, ranging up to 223 years in age. Victor Murphy as per Johnson (2015) reported that lodgepole pine stands become suitable nesting habitat for goshawks around 125-150 years in age, and remain suitable nesting habitat until about 225 years in age.

The lodgepole pine stands to be clearcut in the Bonanza Project are high quality wildlife habitat, whose value will only increase over time. Currently, the high snag densities have been shown as important habitat for the Three-toed Woodpecker on the HLC, where they nest in stands with up to 70 larger snags per acre (and

also create nesting cavities for many other birds) (Saab et al. 2012). Large stands of insect-infested lodgepole pine stands are also noted as important for persistence of the Black-backed Woodpecker (Goggans et al. 1987). These stands not only provide abundant snags for wildlife, but also abundant forage in the form of insect pests, such as mountain pine beetle larvae and wood boring larvae. Research on the HLC has also demonstrated that pine beetle epidemics in lodgepole pine also continue to provide forested habitat for wildlife. Lowrey et al. (2019) noted that in the Elkhorn Mountains, a pine beetle epidemic with up to 80% mortality of older trees, only reduced canopy cover of lodgepole pine forests by about 8%, with complete stand canopy recovery within about 7 years. As well, this beetle phase in lodgepole pine has been demonstrated to promote the development of unique, high quality forest where subalpine fir and spruce increase in seral development (Malcolm 2012). This process of high quality structurally diverse late seral lodgepole pine forests, with increasing subalpine fir and spruce, has been shown to not occur following clearcutting (Collins et al. 2011).

It appears that roughly 38% of the forests in the Castles are lodgepole pine forests, and are being eliminated for old growth management. These stands are noted in the Castles Mountains Restoration DEIS to comprise 22,661 of the 58,931 total forested acres in the mountain range (Table 195). This means that wildlife dependent upon old growth (at least 20 forest birds as per our previous comments) will likely never have the recommended level of old growth (20-25% as per Montana Partners in Flight 2000), or as reported to occur historically, which is 20-50% of the landscape (Lesica 1996). The current estimated level of old growth in the Castle Mountains is 16.3% (USDA 2018), but will decline with the Bonanza Project.

3. The effect of clearcutting on snags and climate change is never evaluated in the Bonanza Project; there is no analysis of such in the HLC Revised Forest Plan as well, so there is no analysis to tier to.

The HLC RFP has desired conditions for snags. These were basically carried over from the 1986 forest plans for both forests, which is to leave a few snags in harvest units, including clearcuts. Neither forest ever provided any actual monitoring data that this direction maintained 20-plus bird species associated with snags, so it has no supported conservation value for wildlife. Snag numbers have never been demonstrated to provide a “proxy” for wildlife associated with snags. The MFWP currently believes that snags (standing and downed) are important to up to 60 species of wildlife (Horowitz 2023). In addition, the expectation that leaving a few snags will provide snags for the next 80-100 years, until suitably sized trees again are restored (10 inches dbh or greater as per Bull et al. 1997) is ludicrous. This mitigation measure for snag-associated wildlife is clearly a violation of both the NEPA and the NFMA, as well as the MBTA. If these few snags stand even 10 years, it would be surprising, given the high winds that occur in clearcuts. Basically, clearcuts will eliminate habitat for all these species of wildlife for 80-100 years, which is a severe impact. This impact is never assessed in either the HLC RFP or the Bonanza Project. Because this impact has never been evaluated in either document, the clearcutting practice is currently a violation of current laws and should not occur until the NEPA and NFMA problems are addressed.

Since clearcuts eliminate habitat for wildlife dependent upon snags for at least 80 years, the size of clearcuts is an important management decision. The larger the clearcut, the greater the local impact. In the RFP, there are no restrictions for the percentage of the landscape that can be clearcut. This percentage is never evaluated for the Bonanza project, likely because there is no limit to the impact of clearcutting densities for the HLC RFP. The Bonanza project will have clearcuts over 40 acres in size as follows: 56, 159, 118, 69, 129, 71, 47, 59, 77, 144, for a total of 929 acres of clearcuts over 40 acres in size. Thus most of the proposed 1,012 acres of clearcuts will be large in size. As per the map of these units, it can be seen that these clearcuts will eliminate snag habitat for wildlife across a relatively large landscape. This elimination of wildlife snag habitat, with no restrictions for amount of area removed per area of landscape, means that the HLC RFP allows significant impacts to snag-associated wildlife, an impact that is never disclosed to the public in the RFP FEIS. This impact is also not disclosed in

the Bonanza Project. Until the HLC RFP develops some “sideboards” to limit the localized loss of snag habitat for wildlife, there should be no further clearcutting on this forest.

Neither the HLC RFP or the Bonanza Project evaluate the impact of clearcutting on local climatic conditions for wildlife, from songbirds, forest raptors to the wolverine. This is an important concern, as over 64% of western forest birds are in decline (Rosenberg et al. 2019). These dramatic declines in western forest birds has also been reported by the North American Bird Conservation Initiative (2020). This science predates the HLC RFP, which means it should have been considered in the development of logging practices, including clearcutting. Failure to evaluate impacts of clearcutting on climate change in the HLC RFP, or the Bonanza Project, is also not just a violation of the NEPA and the NFMA, but also a violation of the MBTA. The impact on increased temperatures, along with reduced thermal cover for protection from severe weather events, will certainly reduce populations of forest birds. Knoss (2016) reported that clearcuts may have a temperature 18 degrees Fahrenheit higher than adjacent forests. Then vegetation breeze results in the movement of cool, moist air from adjacent forests moving out into clearcuts (Lawrence et al. 2022). The results of clearcuts is that temperatures across the entire landscape are increased, to the detriment of wildlife. For example, the wolverine is known to be highly sensitive to heat stress (Copeland et al. 2010). And forest raptors as the Boreal Owl are also noted to be sensitive to heat stress (Carlson 1991). Landscapes that have extensive clearcutting and forest thinning, including landscape like the Castles that are already quite open (see nesting territory map for West Fork Flagstaff territory, Objection Attachment #2). So they will be increasingly be converted into unsuitable habitat for many, if not most, wildlife species, including important pollinators. Bumblebees have been reported to have difficulty locating flowers when heat impedes their sense of smell (Toma 2024).

Neither the HLC RFP or the Bonanza Project evaluate the impact of clearcutting on forest raptors. The agency recognizes the management of these forest raptors is important, as Wildlife Guideline 09 states: management activities should avoid

disturbances at known active raptor nests and fledging areas during the breeding season. This is a meaningless guideline. First, it is not a requirement, but a possible action (should). Second, what is a "known raptor nest?" Without surveys, a raptor nest will not be known. So does this mean that as long as surveys are not done, no protection is ever required? As implemented for the Bonanza Project, this is also a meaningless guideline. The Bonanza design feature states: if raptor nests are located during implementation, a wildlife biologist would be consulted; if an active nest is located in the project vicinity, a work restriction period would be imposed the timing which would be species-specific but could occur between April through August; a no treatment buffer surrounding the nest stand may also be applied depending on the nest site and surrounding area. This design feature clearly notes that raptor surveys will not be done before implementation. It is unclear who exactly is going to do the surveys during implementation. Also, the specific mitigation measures that would be applied are not identified. This information is available as per Ronin and Muck 2002:

Golden Eagle: 1.0 mile buffer, 1/1-8/31

Northern Goshawk: 0.5 mile buffer, 1/1-8/15

Cooper's Hawk: 0.5 mile buffer, 3/15-8/31

Red-tailed Hawk: 0.5 mile buffer, 3/15-8/15

Sharp-shinned Hawk: 0.5 mile buffer, 3/15-8/31

Boreal Owl: 0.25 mile buffer, 2/1-7/31

Flammulated Owl: 0.25 mile buffer, 4/1-9/30

Great Horned Owl: 0.25 mile buffer, 12/1-8/15

Long-eared Owl: 0.25 mile buffer, 2/1-8/15

Northern Saw-whet Owl: 0.25 mile buffer, 3/1-8/31

Northern Pygmy Owl: 0.25 mile buffer, 4/1-8/1

Western Screech Owl: 0.25 mile buffer, 3/1-8/15

Montana Outdoors recently did an article on Montana's 15 owl species. Those possibly present on the HLC, and in the Bonanza Project Area, include the Western Screech Owl, Long-eared Owl, Great Horned Owl, Northern Pygmy Owl, Northern Saw-whet Owl, Boreal Owl, Barred Owl, and Great Gray Owl. Surveys done on the Lewis and Clark National Forest by Carlson (1991) documented the presence of the Great Gray Owl, Northern Saw-whet, Great Horned, Barred, and Western Screech Owl. All were located in lodgepole pine timber types in the Little Belt Mountains. Also, as reported on the 2022 West Fork Flagstaff goshawk territory survey, the area included a Great Horned Owl, Great Gray Owl, and Red-tailed Hawk nests. The Pasture Gulch goshawk survey map for 2022 indicated the presence of Sharp-shinned Hawks nesting activity, Cooper's Hawk nesting activity, and Red-tailed Hawk presence.

Based on the above, raptors likely present in planned clearcut areas on the HLC include at least the Great Gray Owl, Western Screech Owl, Barred Owl, Northern Saw-whet Owl, Cooper's Hawk, Sharp-shinned Hawk, and Red-tailed Hawk, in addition to the Northern Goshawk. These 8 raptor species all may have nests within the lodgepole pine stands planned for clearcutting anywhere on the HLC, including in the Bonanza Project Area. There are no actual surveys required for any of these 9 forest raptors in clearcuts. No surveys have been reported for the Bonanza Project. The number of nesting sites for these 9 forest raptors that will be destroyed in the 1,012 acres of planned clearcutting is unknown. Yet the agency claims there will be no significant impacts to forest raptors from this project. This is a false reporting as per the NEPA, since there is no actual basis for this interpretation.

As well, there was no analysis in the HLC RFP FEIS as to how many forest raptor nesting sites were expected to be destroyed during the nesting season due to the planned clearcutting program on the forest. This is an essential analysis of clearcutting effects which has never been done. This analysis was essential in order for the agency to decide to implement a clearcutting program, including a requirement for raptor surveys and limitations of percentage of the local landscape clearcut in order to preserve adequate habitat for forest raptors. As a

result, the agency's use of clearcutting on the HLC remains unknown, in violation of the NEPA, the NFMA and the MBTA.

The agency did not define why the specific clearcuts in the Bonanza Project were designed, as there were no raptor surveys completed. This again supports our contention that the agency has no actual intent to complete raptor surveys in logging areas. There is also no information in the HLC RFP or the Bonanza Project NEPA documents about what specific buffers will be provided for various forest raptor nests, and during what time periods. **This lack of information regarding forest raptor surveys supports our contention that the HLC RFP has provided a false impression to the public that forest raptor surveys will be done, in violation of the NEPA.**

4. The agency is violating the HLC RFP by failing to provide an analysis of old growth habitat in the Bonanza Project Area.

As per the 2004 Lewis and Clark monitoring report (USDA 2004), there is 10% old growth in the Castles Geographic Area, which includes the Bonanza Project. The HLC RFP requires the agency to either maintain or increase old growth. The agency claims that old growth surveys were done for treatment units, but there is no inventory data available to the public to document the basis and results of these surveys. There appears to have been no inventory of old growth outside of proposed treatment units as well. As we noted previously, the lodgepole pine stands to be clearcut have a high probability of being early seral lodgepole pine old growth. The agency's claim no lodgepole pine stands are old growth was not verified with any survey data as per Green et al. (1992). As is noted in the project PEA, field surveys are required to verify old growth conditions, since VMaps cannot measure all old growth criteria. It is also unclear if any of the Douglas-fir treatments are early seral old growth (Whitford 1991) or mature old growth, as there are no inventory results provided. Simply saying these stands are not old growth does not qualify as a "hard look" at old growth management. It seems highly likely the agency is violating the HLC RFP by removing/degrading old growth

forests. Although the agency could contend that commercial thinning of Douglas fir stands can still maintain old growth, as is claimed in the HLC RFP FEIS, this document never actually evaluated how logging old growth down to minimum criteria defined in Green et al. (1992) would impact several dozen species of birds associated with old growth forests. As such, claims that logging old growth will maintain wildlife values is a violation of the NEPA, the NFMA, and the MBTA. As we note below, there are seven bird species associated with old growth that are Montana Species of Concern.

5. The HLC is violating the NEPA, the NFMA, the APA, and the MBTA by claiming that Desired Conditions outlined in the RFP, including for the Castles GA, will ensure wildlife diversity.

There is no actual analysis in the HLC RFP as to how vegetation DCs will maintain terrestrial wildlife diversity. AS we noted previously, this diversity includes almost 80 species of forest birds that may be present on the HLC. In addition to a complete lack of documentation as to how vegetation DCs ensure persistence of these bird species, the 2012 Planning Rule requires that for species with conservation concerns, more specific management direction is required in addition to vegetation DCs. First, the HLC has violated the NEPA, the MBTA, the NFMA, and the MBTA by failing to actually identify a host of western forest birds that have an identified conservation concern based on accepted methodology by the Montana Natural Heritage Program. Birds of conservation concern identified in Montana include the following:

Northern Goshawk, Flammulated Owl, Great Gray Owl, Clark's Nutcracker, Lewis's Woodpecker, Black-backed Woodpecker, Cassin's Finch, Varied Thrush, Veery, Brown Creeper, Pileated Woodpecker, and Evening Grosbeak. Of these species, seven are associated with old growth, six depend upon snags for nesting, (USDAS 2018; USDA 1990), and three depend on abundant conifer seeds.

The Montana Natural Heritage Program (2000) also rates Montana birds based on priority needs for conservation. Priority I species include the Flammulated Owl, Black-backed Woodpecker, and Olive-sided Flycatcher. Priority II species include the Northern Goshawk, Pileated Woodpecker, Three-toed Woodpecker, Williamson's Sapsucker, and Lewis's Woodpecker. Priority III species include the Cassin's Finch, Red Crossbill, Chipping Sparrow, Clark's Nutcracker, Sharp-shinned Hawk, Western Screech Owl, and Great Gray Owl.

The USFWS has identified Birds of Conservation Concern (BCC) for various geographic regions in the United States. The Bonanza project falls within Bird Conservation Region (BCR) 10. The BCC for BCR 10 include the Calliope Hummingbird, Rufous Hummingbird, Broad-tailed Hummingbird, the Flammulated Owl, Lewis's Woodpecker, Long-eared Owl, Williamsons' Sapsucker, Olive-sided Flycatcher, Evening Grosbeak, and Cassin's Finch. Of these species, the Olive-sided Flycatcher, Evening Grosbeak, and Rufous Hummingbird have been identified as "Tipping Point Species" by the North American Bird Conservation Initiative (2022); these are birds that have lost over 50% of their populations in the last 50 years. This report also noted significant recent declines of the Williamson's Sapsucker.

In spite of a significant number of western forest birds that have been identified as a conservation concern, the HLC RFP does not include a single species specific conservation strategy for any of them. In addition, the Bonanza project also does not include any analysis of any of these species. No information was provided as to why specific habitat objectives are not required for any of these species. The agency clearly has never taken a "hard look" at how the lack of any habitat objectives for numerous bird species of conservation concern ensures maintenance of terrestrial species diversity. At a minimum, without this analysis, the HLC RFP is a violation of numerous laws, and cannot be legally implemented, including in the Bonanza project area. We note that the project record does not include any mention of USFWS BCC for the project area, or identify any "beneficial practices" required to allow incidental take of birds (USFWS 2020, USFWS 2021).

6. The HLC RFP has provided a false narrative to the public that forests will be managed on a scientific basis based on achieving Desired Conditions that replicate historical conditions, or essentially vegetation that occurred 150 years pre-human settlement.

The Bonanza PEA defines the vegetation DCs for the project area in Tables 1-3. These include 7 cover types, 5 size classes, and 3 density classes, for a total of a potential 15 vegetation conditions that represent historical conditions (Historical Range of Variation or HRV) on the HLC. The data on which these descriptions were based in the HLC RFP FEIS was not provided. There was no peer review, as well, provided as to how this intricate, highly detailed information was developed for forests on the HLC that existed 150 years ago. There are many serious questions about these DCs, the first being how all this was determined for forest conditions 150 years ago. Second, it is not clear why all forest types have these simple structures of just one age and density class. Where does this actually occur in nature? As just one example, we cited the Lewis and Clark National Forest old-growth study by Whitford (1991), where Douglas-fir old growth was defined as in general containing at least 2 canopy layers, averaged 206 small trees per acre, and had a seedling density of 433 per acre. These forest stands clearly have a very complex structure, and would not fall into a single density or species age class. Another example is the descriptions of mature forest habitats used by lynx in breeding habitat. Holbrook et al. (2017) summarized the conditions of these mature forest stands as follows: mid-seral stands over 40 years in age in a multi-storied structure with a mixed species composition; tree density of larger trees over 5 inches dbh was 217 trees per acre, while tree density of trees under 5 inches dbh averaged 1500 trees per acre. As such, these stands have a relatively complex structure, with a mix of tree species, age classes, and size classes. So it is not clear how the HLC defined historical forest stands as having a relatively simple cover type, and specific size and age classes. It is clear that these DCs defined by the HLC as representing HRV are highly questionable, even though they are being provided to the public as the best science for managing the public forests.

Actually, the agency does not really believe these DCs apply to forest management, as these DCs are not actually being followed in the Bonanza Project

Area. It is quite surprising that neither the project vegetation report, or the PEA itself, actually define the DCs for forests in the Castles GA. We were able to obtain these DCs for this GA in the HLC RFP. As we summarized in our PEA comments, there is no consistency between proposed DCs for forest cover and noncover types between the Bonanza Project and RFP DCs. One factor we are expanding on from these PEA comments is the DC for Douglas-fir cover types in the Castle GA. This DC is 10-20% in the RFP, while the percentage of this cover type in the Castles GA is 34-35%, depending on the Table. So the agency is claiming that historically, the Douglas-fir cover type was 14% smaller than it is now 150 year later. This does not seem actually possible, since it is unknown where these additional acres of Douglas-fir forests suddenly developed. As well, it is not clear how this DC for Douglas-fir is to be reduced from the existing 34=35%, down to the upper DC of 20%. How can this be done?

There is another serious problem with the vegetation DCs in the HLC RFP that is clearly false, and that is that seedling size classes represent historical conditions. This DC is used to justify clearcutting, which creates the seedling size class (which we note is currently being met in the Castles GA in spite of the proposed clearcutting of another 1,012 acres to meet DCs). There is no science that demonstrates that clearcuts represent historical conditions in any manner. This is patently noted by Hutto (1995) and Hutto and Patterson (2016) where it is noted that a considerable number of forest birds use burned forest habitats, including over a considerable time span. This use depends on the snags created by fire, including the nest sites provided for cavity nesting birds, the forage provided by a series of insects that feed on dead trees, and the intermix of snag and green forests for species as the Olive-sided Flycatcher and Williamson's Sapsucker. The HLC RFP FEIS did not define how these complex post-fire habitat structures provided by fires and insect infestations are replicated in clearcuts. In effect, the justification of clearcutting as representing historical conditions is a huge violation of the NEPA, along with a huge misrepresentation of agency management strategies to the public. The false claim that clearcuts represent historical conditions for wildlife is triggering a massive adverse impact of the HLC RFP that has never been evaluated or disclosed to the public. This impact was also not addressed in the Bonanza project NEPA documents.

7. The analysis of project impacts on elk fails to provide an accurate disclosure of what actual impacts will be, and includes false representation of the current science; this analysis also fails to use the HLC Eastside Assessment recommendations for elk management and analysis, fails to use the 15 year elk logging study by Lyon et al. (1985), and fails to adhere to several HLC RFP directives (guidelines) for elk management and coordination with the Montana Fish, Wildlife and Parks.

Although the Bonanza project area is essentially devoid of elk security (0.7-6.2% in Elk Habitat Analysis Units (EAUs), the Forest Service did not make any attempts to adhere to the HLC RFP directive to coordinate management of elk security issues with MFWP. The agency only said that MFWP did not provide comments. So the agency is claiming that it is the responsibility of MFWP, not the Forest Service, to organize the required coordination to what is clearly a significant problem with elk security. This is also noted because the elk population objectives for this landscape are well over MFWP objectives. The Forest Service did not complete a Forest Plan amendment to allow this RFP violation.

As we noted in our PEA comments, the agency did not measure hiding cover levels, either currently or post-project. There was no rationale provided as to why the Eastside Assessment or Lyon et al. (1985) does not recommend management of hiding cover levels. The Castles GA is clearly low in hiding cover, with an average of about 25% in the 6 locales that include the Bonanza Project Area. With the proposed logging, hiding cover will be further reduced. The current level of hiding cover appears to fall in the range of hiding cover defined as "poor" by Lyon et al. (1985), or below 33%. In spite of this failure to evaluate project impacts on hiding cover, the Forest Service has determined falsely that the Bonanza Project will not have significant adverse impacts on elk.

The agency applied the Lowrey et al. (2019) measure of elk security to the Bonanza Project, while at the same, falsely representing the definitions of elk security in that report. The Forest Service claims that the Lowrey et al. (2019)

The analysis of habitat effectiveness was flawed as well. The assessment of active motorized route densities during summer elk use, defined as Habitat Effectiveness (HE) (Eastside Assessment, Christensen et al. 1993) was stated to remain unchanged with the project, including the addition of over 13 miles of new roads. This false claim was based on a definition of motorized use displacing elk only if this road use was by the public. This claim is directly counter to the Eastside Assessment, and the Lyon et al. (1985) report. Given that the current level of roads/trails is about 3 miles per section in the project area, project levels of HE will be well below the minimum 50% recommended, which limits active motorized route densities to no more than 2 miles per section (Christensen et al. 1993). So the existing level of HE is already having significant adverse impacts on elk, effects which will be exacerbated with the Bonanza Project.

8. The agency's claim that the upcoming forest-wide prescribed burning program, a reasonably foreseeable activities for this landscape, will have no significant adverse impacts in combination with the Bonanza Project, were never supported with any actual analysis; as well, the agency did not define how this prescribed burning program to occur in the Bonanza Project area will contribute to achievement of the vegetation DCs.

Although the Bonanza NEPA documents acknowledge that the upcoming forest-wide prescribed fire project will affect this project area with from 800-1200 acres of burning per year in the reasonable future, this cumulative impact was also stated to be insignificant, including for impacts to elk. First, the claim that roads created for the Bonanza project will be closed, and thus not used again to implement burning of 800-1200 acres per year in this landscape, seem implausible. Also, burning will clearly remove vast amounts of elk hiding cover via understory slashing and burning, with the current low levels of hiding cover (possibly 25% or lower) falling into the "poor cover" category identified by Lyon et al. (1895). So it is impossible to envision that burning vast acres in the Castle Mountains will not create hiding cover levels for elk in some drainages almost to extremely low levels. As such, the Bonanza Project proclamations that this burning program will not trigger significant adverse impacts to elk hiding cover,

and as well, to elk security, are clearly not supported by any analysis. It is also not clear why thousands of acres of sagebrush burning in the forest-wide project will maintain the quality of big game winter ranges in the Bonanza project area. Sagebrush is a key factor in big game winter range, so this burning program will essentially eliminate vast acres of winter range for elk, as well as mule deer, in turn increasing elk displacement to private lands. This impact was not addressed as per cumulative impacts for the Bonanza Project Area.

9. The agency did not include any action alternatives that addressed NEC et al. issues and concerns.

Since the agency combined scoping and draft Environmental Assessment (EA) public opportunities as one comment period, the action alternatives developed (only one) in the Preliminary EA were not based on public issues and concerns. For the draft decision, the agency included only 2 alternatives, the proposed action and no action. A third alternative that would have responded in part to public issues and concerns was to have an alternative with no new roads. There was no proposed action where new roads would simply be reduced, not completely eliminated. This would have allowed the agency to potentially address other public issues and concerns, such as reducing clearcut units and sizes and thus addressing landscape connectivity. Instead of any modifications of the project as per roads, the agency claimed this would prevent treatments on 75% of the planned units.

Of the many issues we raised, such as the lack of old growth management, the lack of snag management, the lack of any conservation measures for forest birds, expansive clearcutting, and the lack of any standards and guidelines for big game management, none were addressed in at least one modified action alternative. This seems to indicate that the compressed opportunities for public scoping do not provide effective public consideration of issues and concerns in project decisions.

10. The agency is violating the 2012 planning rule by failing to maintain habitat connectivity and big game habitat due to a lack of protective standards/guidelines for such.

The current lack of habitat (forest) connectivity in the Bonanza project area is high due to past logging and natural meadows (likely at least 25% openings in the eastern portion of the Castle Mountains as per USDA 2018). Yet the agency plans to create almost 1000 acres of very large clearcuts within some of the remaining larger more contiguous tracts of forests, including lodgepole pine, within this landscape that is already heavily fragmented with openings. There was no analysis as to how these impacts will affect (maintain) landscape connectivity, which is required by the 2012 Planning Rule.

This rule also requires the agency to provide habitat management for big game species. This was accomplished in the 1986 Lewis and Clark Forest Plan that covered the Castle Mountains. Hiding cover levels were protected at both local and landscape levels in that forest plan. The Castle Mountains Restoration Project proposed 2 Forest Plan amendments in order to avoid these requirements for elk hiding cover (USDA 2018, e.g. page 479). Then the HLC RFP completely eliminated these requirements for hiding cover for big game. So the Bonanza Project has no requirements to maintain any hiding cover for elk, in violation of the 2012 Planning Rule. It is clear that hiding cover levels, already low in this landscape, will be further reduced to the detriment of elk due to a lack of any Forest Plan protections.

study reported high quality elk security cover as 23%, when in fact it is 60% or greater. This means that what minimal assessment was provided on elk security effects in the Bonanza NEPA documents are false. The use of the Hillis Paradigm is the accepted method for measuring project impacts on elk security, not the Lowery et al. (2019) method; this latter method simply measured elk locations in the Elkhorn Mountains during the hunting season and correlated these locations to canopy cover. The understory levels in these forests were not measured in this study. So it is not possible to assume that thinned forest with logging or burning would provide the same quality of elk hiding cover as a natural unlogged forest, such as those in the Elkhorn study, since most of the understory in the former will have been removed. In general, removal of understory vegetation changes the value of hiding cover, which is required to hide 90% of an elk within 200 feet. So logging a Douglas-forest down to a 23% canopy cover along with removal of the understory could not be considered as elk hiding cover, as is being proposed in the Bonanza project NEPA documents.

It is unclear as to whether the analysis of elk security in the Bonanza Project is measuring elk security by the requirement of hiding cover as per the Hillis Paradigm (Hillis et al. (1991). It is stated that security will return to pre-project levels post-project. This would only be possible if no hiding cover is the miniscule levels of security that current exist in the project area have no logging activities in them. Otherwise, security will have to be reduced due to the loss of hiding cover. If this will occur is unknown.

This security analysis for the Bonanza Project also does not define that the minimum recommended level of security is 30%, a level stated in the Travel Plan to be the goal for this landscape, and identified in the Hillis Paradigm also as 30%. The Hillis et al. (1991) paper was not used for the elk security analysis for the Bonanza project. There was also no analysis as to how either existing or planned levels of elk security are affecting elk displacement onto adjacent private lands, or how this is likely to be increased with implementation of the Bonanza project.

Attachment #5 for the Objection filed against the Bonanza Project by NEC et al. on April 18, 2025.

Attachment #5 contains relevant portions of literature and/or reports cited in the Objection, including:

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