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December 20, 2023

USDA Forest Service

Reviewing Officer, Northern Regional Office

Attn: Dry Riverside Project

26 Fort Missoula Road

Missoula, MT 59804

## RE: OBJECTION AGAINST THE DRY RIVERSIDE PROJECT

### 1. Objectors

Lead Objector Sara Johnson, Director, Native Ecosystems Council, PO Box 125, Willow Creek, MT 59760; phone 406-459-5936; [sjohnsonkoa@yahoo.com](mailto:sjohnsonkoa@yahoo.com).

*Signed for Objectors the 20<sup>th</sup> Day December, 2023*  
*Sara Johnson*  
Mike Garrity, Director, Alliance for the Wild Rockies, PO Box 505, Helena, MT 59624; phone 406-459-5936; [wildrockies@gmail.com](mailto:wildrockies@gmail.com).

Jason Christensen, Director, Yellowstone to Uintas Connection, PO Box 363, Paris, ID 83261; phone 435-881-6917; [jason@yellowstoneuintas.org](mailto:jason@yellowstoneuintas.org).

Steve Kelly, Director, Council on Wildlife and Fish, PO Box 4641, Bozeman, MT 59772; phone 406-920-1381; [troutcheeks@gmail.com](mailto:troutcheeks@gmail.com).

Kristine Akland, Senior Attorney, Center for Biological Diversity, PO Box 7274, Missoula, MT 59807; phone 406-544-9863; [kakland@biologicaldiversity.org](mailto:kakland@biologicaldiversity.org).

## **2. Project Name and Location**

Dry Riverside Project on the Hungry Horse and Spotted Bear Ranger Districts of the Flathead National Forest.

## **3. Responsible Official**

Tami McKenzie, Forest Supervisor of the Flathead National Forest

## **4. Attachments**

This Objection includes 2 attachments, Appendix A and Appendix B.

## **5. Connection between Previous Project Comments and the Proposed Action**

On December 19, 2022, Native Ecosystems Council, the Alliance for the Wild Rockies, and Yellowstone to Uintas Connection submitted scoping comments on the proposed Dry Riverside Project. These comments included an appendix with hard copies of 26 research papers/reports cited in the comments. Specific topics included a claim that the Flathead National Forest (FNF) is violating the 2012 Planning Rule that requires the agency to include conservation strategies for wildlife species of concern in the Revised Forest Plan, strategies that would then be implemented at the site-specific project level; the agency does not include conservation strategies for a host of Montana Species of Concern (SOC) and U.S. Fish and Wildlife Service Northern Rockies Bioregion Birds of Conservation Concern (BCC), which means the habitats of these multiple species are not



protected from timber and fuels management activities. Key habitats for many of these species include old growth and forested snag habitat, habitats that are slowly being eliminated in productive timberlands on the forest as a result. We also raised a concern about logging in riparian habitats and the impact this will have on bird BCC. We also stressed that the FNF lacks any valid conservation strategies for the Canada lynx, grizzly bear, wolverine and whitebark pine, all species now listed as threatened. As a result, projects such as Dry Riverside, which impacts habitat for all 4 of these threatened species, will have significant adverse impacts on each. The RFP is expected to provide habitat management direction that avoids "take" and significant adverse impacts on these 4 species. Since it does not, it needs to be amended to address this severe failing. We noted that the proposed Dry Riverside Project will violate the Roadless Area Conservation Rule with prescribed burning. The agency failed to provide any valid science to indicate this "management intervention" in these areas set aside for natural management is essential for wildlife, including threatened species. The agency also failed to define why forest fires in IRAs will have "catastrophic effects" on wildlife. We raised concerns about the complete failure of the analysis in the Dry Ridge NEPA documents on impacts to big game species, including habitat requirements and management of winter ranges, habitat effectiveness on big game summer range, and security during the fall. Without a valid assessment of current and project-level impacts on these big game habitat features, the level of adverse impacts (significance) to big game is unknown.

On October 2, 2023, Native Ecosystems Council, the Alliance for the Wild Rockies, Yellowstone to Uintas Connection, Council on Wildlife and Fish, and Center for Biological Diversity submitted comments on the Environmental Assessment (EA) developed for the Dry Riverside Project. These comments largely focused on concerns with management of the Canada lynx, grizzly bear, wolverine, whitebark pine, western forest birds, nongame habitats provided by forested snags and undisturbed old growth forests, big game habitat effectiveness, big game winter range management, elk vulnerability, management of Inventoried Roadless Areas (IRAs), and impacts of logging on carbon sequestration and thus climate change.

Essentially all of the issues and concerns Objectors have previously raised in scoping and 30-day EA comments are being brought forward into this Objection. Although the agency provided comments to many of the issues and concerns we as Objectors have identified for this project, these comments were nothing more than justifications for the proposed action. No actual changes in the agency's management strategy for wildlife, whitebark pine, and IRAs were made as a result of our extensive public comments. In addition, the actual data we requested to be included in the project assessments on most wildlife were never provided. And the agency intends to proceed with the Dry Riverside Project in spite of a lack of meaningful conservation strategies in the FPF RFP for almost all wildlife species. This lack of management direction with this massive vegetation/roading project will clearly have significant adverse impacts on most wildlife species, due to direct, indirect and cumulative actions by the agency.

## **6. Relief Requested**

It is clear that this project, either as direct, indirect or cumulative impacts, will have major adverse and significant impacts on most wildlife in this landscape due to the massive level of past, ongoing and planned vegetation and road management that is planned, as well as exacerbate the ongoing effects of climate change. As a result, we believe this project should be withdrawn from consideration until the FNF develops valid conservation strategies for all wildlife species on the Forest. The project as proposed will essentially continue the agency's practice of converting or managing wildlife habitat as "sinks" for both threatened wildlife and tree species, as well as almost all species of western forest birds. This project is a prime example of an undisclosed strategy of the FNF RFP, which is to relegate wildlife management to unroaded habitats, where it does not interfere with timber production. This strategy was never identified to the public in the RFP, the Record of Decision for this RFP, or in the associated Final Environmental Impact Statement (FEIS). These planning documents are thus a violation of the NEPA for failure to disclose a key strategy for forest management to the public. This lack of disclosure to the public requires a new RFP and FEIS before vegetation treatments are continued.

7. Laws the Proposed Dry Riverside Project will violate if implemented as defined in the 2023 draft Decision Notice

**I. The proposed Dry Riverside Project will violate the National Environmental Policy Act (NEPA), the National Forest Management Act (NFMA), the Administrative Procedures Act (APA), the Roadless Area Conservation Rule (RACR), and the Endangered Species Act (ESA) is implemented as planned.**

**A. The proposed project will have significant adverse impacts on big game species, and requires completion of an Environmental Impact Statement (EIS); these impacts will be triggered due to a lack of valid habitat standards in the RFP for big game species.**

It is clear the agency failed to take a "hard look" at how the proposed project will impact big game species, including elk, mule deer and moose. There are 22,100 acres of elk winter range, 12,616 acres of mule deer winter range, and 14,605 acres of moose winter range in the project area. The agency claims that they will adhere to FW-GDL-WIL-DIV; this direction states the agency "should" maintain an overstory canopy of full-crowned trees to provide snow intercept. There is no more specific direction, including how to manage the understory. The Dry Ridge Project interprets this recommendation as a need to maintain a 50% canopy cover where it exists (draft Decision Notice at 33). It is noted that reducing thermal cover down to 50% will result in a 10% reduction of winter thermal over, but it is not clear how this was determined. The current science defines winter thermal cover for elk as at least a 40 foot stand with at least a 70% canopy cover (Black et

al. 1976). Reducing thermal cover down to 50% would be 20% below the recommended level for elk.

The agency has no monitoring data to indicate if a 50% canopy cover does not significantly reduce the habitat conditions for elk that would be provided by a higher canopy cover of at least 70%. However, it is noted in the EA at 65 that it is not clear if a 50% canopy cover will maintain enough thermal cover for big game species, and as a result, this cover removal on big game winter ranges may have a "temporary" negative impact. Most of the commercial thinning units are in big game winter range.

The agency completely failed to address how the removal of a forest understory will impact big game winter habitat, especially for mule deer and moose. Fuels/logging treatments will include understory slashing of smaller conifer trees, possibly followed by possible broadcast burning and ground treatments to promote conifer regeneration (e.g., draft DN at 24). The removal of the forest understory in mule deer and moose winter range will have severe adverse impacts on these species. Mule deer thermal cover can be only 5 feet tall with a canopy cover of 75%, or sapling size trees with a 60% canopy cover (Black et al. 1976). And dense forests with "double canopies" have been identified as key late winter range for moose (Tyers 2003). These include forest stands with both a relatively dense overstory and understory. In addition, removal of the understory will remove a critical food source for moose in the later stages of the winter, or subalpine fir (Tyers 2003). The EA at 5 notes that many forest understories in areas that have not burned contain spruce and subalpine fir trees.

So the Dry Ridge project will result in an extensive degradation of big game thermal cover for at least mule deer and moose, while any increased forage created after 5 years for elk (EA at 55) will be under snow during the critical parts of winter, as this area is noted to have high snow levels in the winter. Reduction and/or removal of the winter range's overstory and understory via logging, slashing and burning will result in increased snow depths, increased crusting of snow, increased wind effects, increased fluctuations of ambient air temperatures day and night, and removal of a key moose winter forage, subalpine fir (Tyers

2003). A key habitat feature for moose winter habitat, "double canopies," will be removed due to both overstory and understory thinning. Id. In addition, conifer forage for smaller trees, along with almost all shrub species, may be buried under winter snows and thus unavailable to big game species. Id. The current science for management of big game winter ranges clearly indicates the proposed logging and fuels treatments on large acreages of big game winter range in the Dry Riverside Project Area will reduce current big game populations due to a reduction of quality winter range. Although it is not clear how much of a population reduction can be expected, the agency did not address this problem, and clearly failed to take a "hard look" at the results of the proposed actions in winter range, in violation of the NEPA. This hard look is also required by a 15-year elk logging study, that included Montana; Lyon et al. (1985) noted that management of big game winter ranges requires sight-specific management recommendations based on local elk use monitoring, as errors in management can have big impacts on habitat quality; this management requires an emphasis on the management of thermal cover.

The impact of reducing hiding cover for big game on the treated winter ranges was not addressed as well. The predation impacts on big game from wolves was not considered. Although the agency claims that treatments on winter range will maintain big game hiding cover (i.e., EA 61, 64), this is clearly a false claim, since the understories will be removed, the same habitats that provide high quality hiding cover, or conceal 90% of an elk within 200 feet (Black et al. 1976).

The displacement of elk from summer habitat will also be a significant adverse impact. Roughly 40% of the project area is roaded. Almost all of this habitat will be mostly unavailable to elk during project implementation, including the ongoing Betty Baptiste Project, due to the active motorized route density. Any road that has motorized activities displaces elk (Christensen et al. 1993; Lyon et al. 1985), especially if there are more than 2-4 vehicle trips per day (USDA/MFWP 2013). The roaded portion of the project area, which is approximately 20,000 acres. This is roughly 31 square miles. The project will use at least 67 miles of existing system roads, plus add 17 miles of reconstructed/historical roads and build 4.3 miles of

new temporary roads (draft DN at 24). This will create an approximate active motorized route density for elk of 2.85 miles per section. When the 2.7 miles of new roads constructed for the Betty Baptiste Project are included, the active motorized route density may reach 2.94 miles per section. This would provide a habitat effectiveness level of roughly 40% (Lyon et al. 1985; Christensen et al. 1993). The minimum recommended level of habitat effectiveness for elk summer habitat is 50%, which is an active motorized route density of 2 miles per section (Id.). As per these habitat recommendations for elk, the Dry Riverside Project Area in roaded portions, or 42% of the project area, will have a significant loss of elk habitat use due to roads.

The Dry Riverside Project will also have a significant adverse impact on elk security. There is no actual analysis of current, project-level, and post-project security for the Dry Riverside Project, in violation of the NEPA. However, given the high active motorized route density that will be required for this project, and the density of proposed thinning units, it seems highly unlikely that big game security will meet the minimum required level of 30% (Hillis et al. 1991). Management of elk security habitat is an identified issue on forest service lands in Montana (USDA/MFWP 2013). As security declines, elk displacement to private lands increases, with a loss of both elk use of public lands and hunting opportunities for the general public. *Id.* Security has been defined by the current best science as a block of contiguous forest cover at least 0.5 miles from an active motorized route (Hillis et al. 1991; Christensen et al. 1993), or at least 250 acres of forests with a minimum canopy cover from 23-60% which is from 1.14 to 2.2 miles from an active motorized route (Lowrey et al. 2019). The use of canopy levels to identify elk security habitat by Lowrey et al. (2019) demonstrate that this measure provides a lower level of security for elk, as the distance from active motorized routes required was up to twice the distance from within stand hiding cover as identified by the Hillis Paradigm. Also, the canopy cover levels measured in Lowrey et al. (2019) were for unlogged forests in the Elkhorn Mountains, so would not actually represent logged forests where extensive understory removal occurs, as is planned in the Dry Riverside Project. As such, the best measure of elk security for the Dry Riverside Project appears to be the Hillis Paradigm.



It is unlikely that in the roaded portions of the Dry Riverside Project area that there is currently 30% security, which is recommended to be well distributed, including at lower elevations when fall snows force elk down slope (Hillis et al. 1991). Although the agency claims there are 33,154 acres of current hiding cover (DN 7), the level of current hiding cover in the roaded portions of this project area, where vegetation treatments are planned, is unknown. While the existing level of security is unknown in the roaded portions of this project area, post-project it will clearly be significantly reduced by roughly 4,000 acres of commercial and understory treatments. And with the Betty Baptiste Project, another 918 acres of forest are being logged at this time. Overall, there will approximately 5,000 acres of hiding cover removed with this project, cover that will not return for approximately 20 years (EA 63). With the roaded portions of this project area covering roughly 20,000 acres, the combined projects planned for this roaded portion of the landscape will remove roughly 25% of the hiding cover. This is a significant amount of landscape impact, which would also include fragmentation of any remaining cover blocks. So the post-project level of big game security may fall below the recommended 30% of a landscape, which indicates the project may create significant adverse impacts on elk.

Although the agency claims that commercial thinning will maintain elk hiding cover (e.g., EA 60-61), no basis for this claim was provided. Given thinning of both the overstory and understory, followed by broadcast burning, at best elk cover will be greatly reduced, not maintained, with these activities. This reduction in cover values needs to be assessed by the agency. Without any actual substantiation by the agency that commercial thins and post-logging treatments will maintain elk hiding cover, it is likely to expect that elk cover will be reduced below the level that elk would use such to hide from hunters.

**B. The proposed action may have significant adverse impacts on the threatened whitebark pine; the agency needs to take a "hard look" at how the proposed burning that may include whitebark pine habitat will affect this threatened species, including identifying what is the expected percentage of trees that will be killed by fire per acre, and why this would not cause significant losses in both tree densities and genetic diversity.**

The Dry Riverside Project plans to burn a little over 2,000 acres within roadless lands. The amount of whitebark pine in these proposed burning units is unknown. Burning is also planned and/or ongoing in these roadless lands for the Betty Bepiste Project on a little over 600 acres. The agency has not provided any inventory data on the amount of whitebark pine trees, including seedlings and saplings, that occur on these 2600 acres of potential whitebark pine habitat. The burning is intended to be moderate to high severity, which will clearly kill any whitebark pine in burned areas, including seedlings and saplings. The high sensitivity of mature whitebark pine to being killed by fire was noted in the recent Standing Analysis completed by the U.S. Fish and Wildlife Service (1/17/23). This analysis also questioned claims that whitebark pine is "fire dependent," given its high vulnerability to fire, including mature trees. Hence Forest Service claims that fire restores whitebark pine are questionable. The destruction of whitebark pine regeneration, including seedlings (1-29 years of age, up to 4.5 feet tall), and saplings (between 29-40 years in age, also up to 4.5 feet tall) within whitebark pine stands will result in a huge loss of genetic diversity for this threatened species (Standing Analysis 2023). Whitebark pine trees, which can live up to 1,000 years, are adapted to surviving long periods of suppressed growth rates, and are much more shade tolerant than previously believed (Id.); suppressed whitebark pine trees in the forest understory may survive for 150 years of low growth, but are then able to release upon reaching the main canopy (Id.); also, succession of whitebark pine stands to subalpine fir may take 500 years, so removal of this other tree species does not appear necessary to prevent succession to subalpine fir in whitebark pine (Id.).

The impact of the proposed burning in potential whitebark pine habitat needs to be evaluated as per the NEPA and the ESA for the Dry Riverside Project, including activities being implemented for the Betty Baptiste Project. Once the expected number of whitebark pine trees, including seedlings and saplings, is measured for these projects, the agency needs to define why this destruction will not significantly reduce the viability of whitebark pine in this project area.

**C. The Proposed Action will have severe adverse and significant impacts on the threatened Canada lynx and critical habitat, in addition to a violation of the ESA, significant impacts are also likely due to the planned violation of the Flathead RFP regarding habitat connectivity for the lynx; an Environmental Impact Statement if required for this project as a result.**

The proposed Dry Riverside Project's assessments of project impacts on the Canada lynx is based on outdated science as per implementation of the Northern Rockies Lynx Management Direction (hereafter "Lynx Amendment"). In turn, the U.S. Fish and Wildlife Service's Biological Opinion for the Flathead Revised Forest Plan (RFP) is also based on invalid, outdated science for the lynx. The Forest Service has used this outdated, invalid science as a basis for claiming that the proposed project will not adversely impact lynx critical habitat, or lynx recovery and persistence in this project area. Use of the Lynx Amendment as an analysis tool for assessing impacts on lynx and critical habitat therefore prevents the agencies from completing the "hard look" required by the NEPA, or the ESA requirement to use the current best science for managing lynx and lynx critical habitat. As we noted in our previous comments on this project for scoping and the draft EA, there are at least 4 more recent scientific reports published in established scientific journals that demonstrate the Lynx Amendment is severely flawed as per lynx management and conservation (Kosterman et al. 2018; Holbrook et al 2018; Holbrook et al. 2018; Holbrook et al 2017a). We cited 2

examples of why the Dry Riverside Project will severely degrade lynx habitat and lynx critical habitat. These include exceeding the 5% opening level selected by lynx within their home ranges, and the 50% mature forest habitat also selected by lynx in their home range (Id.). Just as one example of this science that demonstrates that commercial thinning will not maintain mature forest habitats required by lynx was noted by Holbrook et al. (2017a). They defined mature forest habitat used by lynx as being 40 years or older, having an average dbh of 10 inches, having a median canopy cover of 56%, having a median tree height of 65 feet, and having a median basal area of 140 square feet per acre. These mature forests used by lynx also have a median level of 217 trees per acre over 5 inches dbh, and a median 1500 trees per acre under 5 feet in dbh. It is clear that commercial thinning for the Dry Riverside Project will not maintain the mature forest habitat conditions required by lynx. These commercial thins will be converted to the "sparse" forest types avoided by lynx. Id.; (Squires et al. 2019). As a result, in the roaded portions of this project area, which comprise roughly 20,000 acres, the roughly 4,000 acres of forest thinning that will occur for this project will comprise 20% of the roaded portions of the project area. When the Betty Baptiste logging of roughly 1,000 acres is added to this impact, there will be roughly 25% of the roaded portion of the project area that will have suitable mature forest habitat removed for lynx use. The agency did not demonstrate that remaining mature forest habitat levels will remain at 50%, as is required for productive lynx habitat.

The agency also failed to take a "hard look" at how the proposed creation of more forest openings via regeneration harvests would impact lynx habitat quality, as per the recommended level being 5% (Kosterman et al. 2018; Holbrook et al. 2019). It seems likely that current conditions already create significant adverse impacts to lynx habitat and lynx critical habitat in the roaded portions of this project area. Added increases in openings will only exacerbate these existing significant impacts. These significant adverse impacts to lynx and lynx critical habitat were not evaluated by the agency, or disclosed to the public, as is required by the NEPA.

The agency also did not evaluate how current and proposed conditions will affect habitat connectivity for lynx, including within critical habitat. The avoidance impact of forest vegetation treatments has been identified by the current best science, including clearcuts (Squires et al. 2010), and others more recently (Holbrook et al. 2017b, Holbrook et al. 2018; Holbrook et al. 2019, Kosterman et al. 2018). The current recommended level of habitat connectivity for lynx is roughly 70%, which includes 50% suitable mature forest habitat, and 20% dense regeneration forests that extend above the snow (Id.). The proposed two projects in the Dry Riverside Project Area, including Betty Baptiste, will reduce cover on roughly 25% of the roaded portions of the project area. This will leave at best 75% habitat connectivity for lynx as selected in optimal habitat. Id. The current levels of habitat connectivity are unknown for this project area, as this information was never provided. It appears likely that habitat connectivity for lynx within lynx critical habitat will be significantly reduced with the proposed/ongoing projects. The agency failed to take a "hard look" at this potential scenario, in violation of the NEPA.

The likely violation of Forest Plan direction to maintain lynx habitat connectivity will also likely be violated by this project. The Lynx Amendment was designed to prevent significant adverse impacts to lynx, including maintaining habitat connectivity. There was no analysis to support agency claims that habitat connectivity for lynx would be "maintained" by the 2 planned/ongoing projects in the roaded portions of this landscape. Given no actual documentation was provided that this RFP direction will be met in this project, the agency has failed to demonstrate that this direction will maintain connectivity for lynx, including in critical lynx habitat, in the roaded portions of this lynx habitat.

Overall, the Forest Service reliance on the Lynx Amendment as a basis for assessing the level of impacts to lynx and lynx critical habitat is in itself a violation of the NEPA and the ESA, as well as the National Forest Management Act (NFMA). This act requires that Forest Plan direction be monitored so that estimated effects are actually being achieved. The "proxy" for lynx conservation success in the Lynx



Amendment is invalid, as it does not measure lynx population trends. Instead, it is used to measure the level of exemptions/exceptions allowed in lynx habitat.

The Species Status Assessment (FWS 2017) makes it abundantly clear that there is currently no actual evidence (science) to indicate the Lynx Amendment is conserving lynx and their habitat, including critical habitat. There is no current evidence on lynx population trend, which is essential in order to define how the Lynx Amendment is affecting lynx. References to the lack of lynx population trend, as well as the lack of certainty as to the effectiveness of the Lynx Amendment in conserving lynx, is repeated throughout this SSA, including at 3, 18, 21, 22, 36, 57, 85, 99, 100, 102, 105, 107, 111, 134, 135, 137, 138, 140, 141, 143, 155, 158, 210, 216, 219, 222, and 231. Given that the Lynx Amendment does not incorporate more recent science on lynx habitat use since 2000, there is a high probability that this direction is insufficient to maintain lynx or promote recovery, including in the Dry Riverside roaded landscape.

Another factor not addressed in the Lynx Amendment is how vegetation management impacts snowshoe hares, a key prey species for lynx. As was noted by Lewis et al. (2011) snowshoe hares are highly sensitive to forest fragmentation along with loss of winter habitat provided in multistoried mature forests and older, dense regeneration units. With the ongoing and proposed vegetation treatments in roaded areas of the Dry Riverside Project Area reaching a total of over 8,000 acres (7420 for the Dry Riverside Project and 918 for the Betty Baptiste Project), snowshoe hare habitat will reach a fragmentation level of at least 40%. The agency did not evaluate how this planned fragmentation level, which would be minimum given what levels currently exist, will affect snowshoe hare densities, and thus lynx. As was noted by Squires et al. (2010), snowshoe hare densities in the Northern Rockies are already marginal for lynx persistence, and small reductions in their densities may render a landscape as unsuitable lynx habitat.

Another factor the agency failed to consider for project and cumulative impacts on lynx is the effect of roads. As was noted by Squires et al. (2010), lynx did not avoid roads with low volumes of vehicle traffic, which were identified as 8 vehicle trips per day. It seems highly likely that most of the roads planned for the Dry

Riverside Project, as well as those already constructed for the Betty Baptiste Project, will have significantly higher traffic levels than 8 vehicle trips per day during implementation. This low level of vehicle use "tolerated" by lynx is quite similar to the low vehicle use level (10 vehicle trips per day) tolerated by grizzly bears (Mace et al. 1996). The agency's failure to address roading impacts on lynx is yet another violation of the NEPA and the ESA for this project.

**D. The proposed actions in the Dry Riverside Project Area will have significant adverse impacts on the grizzly bear, impacts that require completion of an Environmental Impact Statement.**

The agency did not define how current or planned conditions for the grizzly bear affect conservation of this threatened species, in violation of both the ESA and the NEPA. The current best science recommends that 60% of grizzly bear habitat provide "core" for security, with the minimum size of core areas to be 2,500 acres (Proctor et al. 2019). The Dry Riverside project area has 20,000 acres of roaded habitat, which includes essentially all of the lower elevation grizzly bear habitat in this landscape. To meet the recommended levels of core habitat in this roaded landscape, there should be 12,000 acres of security (60% times 20,000 acres = 12,000 acres). If each security area was at least 2500 acres, this would provide roughly 5 security areas in this roaded landscape. However, the Forest Service has not provided a single security core area in the roaded portions of this landscape. Thus these roaded portions are not being managed for grizzly bear conservation, in violation of the ESA. The agency did not evaluate why the failure to provide core habitat within roaded, lower elevation portions of the project area would impact grizzly bear habitat use, in violation of the NEPA. The level of expected grizzly bear use of the roaded portions of this project area as per security were never evaluated by the agency. The agency thus did not take the "hard look" required as per the NEPA for the ongoing and planned management of grizzly bears as per availability of core habitat within the roaded portion of this landscape. The agency apparently is making the unfounded assumption that the lack of core habitat will not significantly impact roaded habitat use by bears.

The agency also failed to identify the open road density that will occur in the Dry Riverside Project Area during ongoing and planned vegetation treatments. Impacts of roads on grizzly bears is defined by traffic levels, with a conservative estimate being that 10 vehicle trips per day will be tolerated by grizzly bears (Mace et al. 1996). Without defining the level of traffic on existing and new roads in this project area, the agency has not looked at or defined how motorized use will impact grizzly bears during this project. Although the impacts of motorized use on grizzly bear mortality is reduced with exclusion of public motorized activity, nonmotorized public access and activity on these roads can also impact grizzly bears, including mortality, including hunting (Schwartz et al. 2010) and other recreation, due to surprise encounters with bears. The current best science identifies an active motorized route density of no greater than a mile per section in order to avoid displacement/mortality increases to grizzly bears (Proctor et al. 2019). For the ongoing and planned activities in the Dry Riverside Project Area, it appears that the active motorized route density created by administrative and logging traffic may reach up to 3 miles per section. And although the Forest Service suggests in the RFP that vegetation treatment activities that exceed 5 years in duration should be avoided in grizzly bear habitat, the lack of adverse displacement/mortality impacts on grizzly bears up to the 5 year timeline was never demonstrated. The 5-year recommended disturbance period in grizzly bear habitat appears to be an arbitrary creation, especially if other important habitat features for grizzly bears, including security and the density of active motorized routes, is also considered. A 5-year period of disturbance would still have significant adverse impacts on grizzly bears if active motorized route densities exceed tolerable levels, along with an absence of security areas that bears could seek out during project disturbances.

The estimated 5 year limit to grizzly bear disturbances within Primary Conservation Areas (PCAs), such as the Dry Riverside project area, is not actually a requirement by the Forest Service. This recommendation may be "exempted" at any time, including to continue vegetation treatments. This is amply demonstrated by the 10 year or greater timeline that is planned within this PCA for the ongoing Betty Baptiste project, which will continue into the Dry Riverside

Project upon completion. The impact of these long disturbance period in this PCA is not evaluated by the agency in the Dry Riverside NEPA analysis.

The agency also notes that the RFP requires protection of grizzly bear spring habitat use, which is entirely within the roaded portions of the Dry Riverside Project Area. However, again, exceptions to protections of grizzly bear spring range are allowed, and may occur for the Dry Riverside Project. The impact of this spring disturbance of grizzly bears was not evaluated for this project, however.

A final adverse impact on grizzly bears that was not evaluated for the Dry Riverside Project is the disturbance and thus displacement of grizzly bears from 20,000 acres of roaded habitat during project implementation of vegetation treatments for both the Dry Riverside and Betty Baptiste Projects. With roughly 4,000 acres of habitat disturbances from vegetation treatments planned in roaded portions of the Dry Riverside Project Area, and roughly 1000 acres of habitat disturbance ongoing or planned for the Betty Baptiste Project, this amounts to 5-10 years minimal continued disturbances in this PCA, on 25% of the roaded habitat. The agency did not define why this 25% level of disturbance will not significantly displace grizzly bears during this time period, simply from vegetation treatment activities. In addition, the impacts of increased and expanded traffic impacts well above the level tolerated by grizzly bears will add to impacts of vegetation treatments. It is difficult to imagine that active motorized densities that may reach up to 3 times the level tolerated by grizzly bears, as well as addition disturbances on 25% of the landscape from vegetation treatments, will not significantly reduce grizzly bear habitat use. The agency has clearly failed to demonstrate this project will not significantly and adversely impact the grizzly bear, an impact that requires completion of an EIS.

The planned significant adverse impacts of the proposed and ongoing vegetation treatments in the Dry Riverside Project area are also a violation of the ESA. These management actions convert recovery habitat into "sink habitat."

**D. The Dry Riverside Project will continue and expand significant adverse impacts on the threatened wolverine, in violation of the ESA; the NEPA is also being violated due to a failure of the agency to complete an EIS to address significant adverse impacts to be triggered by this and ongoing vegetation treatment projects.**

There was no analysis in the Dry Riverside NEPA documents about how current and planned active motorized and even closed routes will impact the habitat use of the 20,000 acres of roaded lands by the wolverine. It has been well documented that this species is highly sensitive to motorized activity on roads (Fisher et al. 2013; Stewart et al. 2016; Scrafford et al. 2018). In turn, this high sensitivity of wolverine to motorized activity has been more recently recognized by the FWS. In their 2023 analysis for a recovery plan for the newly listed wolverine, it was noted that not just climate change, but management activities by human, and the associated habitat disturbances, pose conservation risks for this species. Given that the Dry Riverside and Betty Baptiste projects may increase the density of motorized activity levels in this landscape by up to 3 miles per section, this impact of wolverine will likely be significant. Yet this roading impacts was not evaluated by the agency in the Dry Riverside NEPA documents, in violation of both the NEPA and the ESA.

**E. The agency did not evaluate the impact of prescribed burning on grizzly bears, wolverine, Canada lynx or western forest birds in the Dry Riverside NEPA documents.**

The agency plans for prescribed burning of habitat for grizzly bears, wolverine, Canada lynx habitat, along with habitat for 67 species of western forest birds planned on roughly 3,000 acres of unroaded habitats in the Dry Riverside Project Area. These impacts are claimed to be "neutral," including disturbances within unroaded areas, including within Inventoried Roadless Lands (IRAs). However, the



planned changes in vegetation as per habitat for these species was not evaluated to support claims of no significant impacts, along with the required disturbance activities from on-the-ground management of burns as well as helicopter activity within grizzly bear core and wolverine habitat. The benefits of this burning to these species was not identified as well, or defined as being necessary for their conservation. The habitat problems that need to be "restored" for these species with burning remains undefined. The agency also did not define why burning of habitat for 67 species of western forest birds, including the Clark's Nutcracker, a species of special interest on the Flathead National Forest, will have no adverse impacts. These activities will result in the removal of hiding cover, thermal cover, nesting sites, and forage (conifer seeds) for all these bird species. The reduction of carrying capacity for these 67 species of western forest birds, including the Clark's Nutcracker, was not evaluated for this and the Betty Baptiste Projects, in violation of the NEPA. The agency has no basis for concluding that these prescribed burning activities will not significantly modify habitat for all these species, in violation of the NEPA.

**II. The agency failed to take a "hard look" at project impacts on 67 species of western forest birds, in violation of the NEPA and the Migratory Bird Treaty Act (MBTA); the Flathead RFP is a violation of the NFMA and the MBTA due to a complete failure to require the conservation of forest birds.**

There was no analysis of project impacts on western forest birds in the proposed Dry Riverside Project, or the Betty Baptiste Project, in violation of the NEPA requirement to take a "hard look" at project impacts on resources. The impacts to western forest birds will clearly be significant, due to a reduction of hiding cover, thermal cover, nesting habitat, and forage in the roaded portions of this project area.

There are roughly 67 species of western forest birds, 64% that are in decline as reported by Rosenberg et al. (2019). The State of the Birds report for 2023 (North American Bird Conservation Initiative 2022) evaluated western forest birds somewhat differently, but stated that about half of 46 species are in decline.

In Montana, there are 13 species of western forest birds considered Species of Conservation Concern (SOC). These include the Golden Eagle, Brown Creeper, Evening Grosbeak, Pileated Woodpecker, Cassin's Finch, Varied Thrush, Lewis's Woodpecker, Clark's Nutcracker, Black-backed Woodpecker, Flammulated Owl, Great Gray Owl, Northern Goshawk, and Northern Hawk Owl.

In the Northern Rockies Bioregion of the U.S. Fish and Wildlife Service, there are 9 forest bird species identified as Birds of Conservation Concern (BCC). These include the Calliope Hummingbird, Rufous Hummingbird, Flammulated Owl, Long-eared Owl, Lewis's Woodpecker, Williamson's Sapsucker, Olive-sided Flycatcher, Evening Grosbeak, and Cassin's Finch.

Nine of the MSOC are known to be associated with old growth forests on the Flathead (USDA 2018; USDA 1990 by Warren), including the Brown Creeper, Pileated Woodpecker, Varied Thrush, Lewis's Woodpecker, Black-backed Woodpecker, Flammulated Owl, Northern Goshawk, Great Gray Owl, and Northern Hawk Owl.

Three of the Flathead associated western forest bird species are USFWS BCC, including the Williamson's Sapsucker, Flammulated Owl, and Lewis's Woodpecker.

Seven of the MSOC are dependent upon snag habitat for nesting on the Flathead National Forest, including the Black-backed Woodpecker, Brown Creeper,

Flammulated Owl, Great Gray Owl, Pileated Woodpecker, Lewis Woodpecker, and Northern Hawk Owl.

Three of the USFWS BCC include western forest birds on the Flathead that requires snags for nesting, including the Flammulated Owl, Lewis's Woodpecker, and Williamson's Sapsucker.

The Williamson's Sapsucker, a western forest bird on the Flathead National Forest that requires both old growth forests and snag in forests for habitat, has been recently noted to be in a significant decline (North American Bird Conservation Initiative 20220).

Cavity nesting birds on the Flathead National Forest include at least 29 species of western forest birds, including the American Kestrel, Barred Owl, Black-backed Woodpecker, Black-capped Chickadee, Boreal Owl, Brown Creeper, Chestnut-backed Chickadee, Downy Woodpecker, Hairy Woodpecker, House Wren, Lewis's Woodpecker, Mountain Bluebird, Mountain Chickadee, Northern Flicker, Northern Hawk Owl, Pileated Woodpecker, Pygmy Nuthatch, Northern Pygmy Owl, Northern Saw-whet Owl, Red-breasted Nuthatch, Red-naped Sapsucker, Three-toed Woodpecker, Tree Swallow, Violet-green Swallow, White-breasted Nuthatch, Williamson's Sapsucker, and Western Bluebird (USDA 2018; USDA 1990 by Warren).

Old-growth associated bird species on the Flathead National Forest include at least 22 species of western forest birds, including the Black-backed Woodpecker, Boreal Owl, Brown Creeper, Chestnut-backed Chickadee, Flammulated Owl, Golden-crowned Kinglet, Hairy Woodpecker, Hammond's Flycatcher, Hermit Thrush, Lewis's Woodpecker, Northern Goshawk, Pileated Woodpecker, Pine Grosbeak, Pygmy Nuthatch, Red-breasted Nuthatch, Swainson's Thrush, Three-toed Woodpecker, Townsend's Warbler, Varied Thrush, Vaux's Swift, White-breasted Nuthatch, and Winter Wren (USDA 2018; USDA 1990 by Warren).

The Flathead National Forest does not have a biological-meaningful requirement to maintain its 22 species of western forest birds associated with old growth. Actual old growth is not required because old growth can be logged down to what amounts as a silvicultural "seed tree cut" with 5-15 medium size trees (Dry Riverside EA Table 4); this number of trees would meet the minimum number of larger trees required for the minimum criteria defined by the Green et al. (1991) definitions for old growth. A shelterwood silvicultural cut requires only 25-35 medium-sized trees, which also meets the minimum criteria defined by the Green et al. (1991) definitions for old growth (Id.). A commercial thin would require only 80-100 medium sized trees, with an average canopy cover level of 50% (Id.), although a natural forest stand as defined for lynx habitat would contain 217 trees per acre over 5 inches dbh, and 1500 trees per acre under 5 inches dbh, with an average canopy cover level of 56% (Holbrook et al. 2017a). Thus the Flathead National Forest does not actually require any wildlife old growth, as defined by USDA 1990 by Warren, which includes the complete structural characteristics of old growth. As such, the 22 species of western forest birds that are associated with old growth are likely being progressively reduced across the forest's landscape. The Dry Riverside Project Area is a good example. This area is reported to have approximately 10% old growth, although it is unknown if this is valid wildlife old growth. The recommended levels of old growth for western forest birds is 20-25% (Montana Partners in Flight, Bull and Holthausen 1993; Reynolds et al. 1992). Thus the Dry Riverside Project area is already significantly deficient in old growth, including below the historical levels of 200-50% old growth (Lessica). The Dry Riverside NEPA analysis does not evaluate past and planned impacts on these 22 species of western forest birds associated with old growth.

The Dry Riverside NEPA analysis also does not evaluate past and planned impacts on the 29 species of western forest birds that require snags within forests for nesting. The Forest Plan monitoring of snag habitat is based on an invalid "proxy" which purports to measure the viability of 29 species dependent upon snags by averaging out snags across the landscape. The RFP FEIS did not define why average snag numbers indicate population viability of 29 dependent species. The use of snag numbers of manage associated species was actually identified by the

Forest Service in 1997 as an invalid conservation strategy for birds, since they require much more than just a snag as habitat, including hiding cover, thermal cover, and foraging areas. Also, in 1987, Goggans et al. (1987) noted that management of forest woodpeckers, who create cavities for almost all other birds that require them, requires protecting large tracts of unlogged forests where natural processes that create snags are allowed to proceed without management intervention. In fact, a lack of management intervention is the required management strategy for all 29 species of western forest birds associated with snags. The FNF RFP lacks any such valid strategy for these 29 western forest bird species. What the FNF implies for viability of these, as well as old growth species, is that habitat within unroaded landscapes, such as IRAs and Wilderness Areas, has to be sufficient for their viability. The Dry Riverside Project Area is a good example of this unacknowledged management strategy for western forest birds. There is no valid management plan in the roaded portions of this project area for any western forest birds, including those associated with unlogged old growth, or forested snag habitat. Yet the agency did not provide any analysis as to how this management strategy for all 67 species of western forest birds can avoid significant adverse impacts, including on hiding cover, thermal cover, nesting sites, or forage as per conifer seeds.

There are at least 20 species of western forest birds that consume conifer seed, a food resource that will be reduced with various levels of forest thinning, from commercial thins to clearcuts. These species include the Clark's Nutcracker, which is a species of special interest on the Flathead National Forest. The significant reduction of conifer seed resources available to this species of special interest, which include Douglas fir and ponderosa trees (Wells 2011, USFWS 2023) that will occur with the Dry Riverside and Betty Baptiste Projects was not addressed by the Dry Riverside NEPA analysis. Other seed eating species of western forest birds include the Red-shafted Flicker, Lewis's Woodpecker, Stellar's Jay, Winter Wren, American Robin, Evening Grosbeak, Pine Grosbeak, American Goldfinch, Red Crossbill, Slate-colored Junco, Oregon Junco, Chipping Sparrow, Hairy Woodpecker, Gray Jay, Mountain Chickadee, Red-breasted Nuthatch, White-breasted Nuthatch, Pygmy Nuthatch, and Pine Siskin (Smith and Balda 1979,



Smith and Aldous 1947). Logging will reduce conifer seed production by reducing tree density and age of trees (Benkman 1993).

It is clear that the cumulative impacts of Forest Service vegetation management in the Dry Riverside landscape on western forest birds is huge. Past logging on 11,180 acres, or 56% of the roaded habitat in this project area (Project EA Table-61) has occurred, and will continue to occur, with a single valid conservation strategy for 67 species of western forest birds, including those associated with old growth forests and forested snag habitat. The loss of carrying capacity for this large suite of birds needs to be defined from both a project level and cumulative scale so that the public is provided accurate information on how these species are being managed by the agency, that is required by both the NEPA, the NFMA, and the MBTA.

The failure of analysis of project level impacts on western forest birds for the Dry Riverside Project also includes a failure to demonstrate that management intervention into IRAs is necessary to maintain and/or restore habitat for any of the 67 species of western forest birds. There is no analysis as to why ongoing and proposed additional burning of roughly 3,000 acres of bird habitat within IRAs is needed for these species in order to restore degraded habitat. There was no analysis, as well, as to why crown fires in IRAs need to be reduced for western forest birds. As was noted by Hutto (1995), crown fires are essential for many western forest birds. Efforts to reduce these are clearly inconsistent with impacts to many species of western forest birds. This inconsistency was not discussed by the agency in the IRA burning proposals, which are purported to be consistent with the Roadless Area Conservation Rule. Given there was no actual analysis of why this burning is needed for any wildlife species for habitat restoration, the Forest Service is not only violating the Roadless Rule, but the NEPA as well, by providing conclusions without any analysis.

There was no analysis, as well, as to why crown fires in IRAs need to be reduced for western forest birds. As was noted by Hutto (1995), crown fires are essential for many western forest birds. Efforts to reduce these are clearly inconsistent with impacts to many species of western forest birds. This inconsistency was not discussed by the agency in the IRA burning proposals, which are purported to be consistent with the Roadless Area Conservation Rule. Given there was no actual analysis of why this burning is needed for any wildlife species for habitat restoration, the Forest Service is not only violating the Roadless Rule, but the NEPA as well, by providing conclusions without any analysis.

**III. The agency has failed to provide a valid assessment of how the proposed project will affect wildfire in the project area, or why short-term increases in climate change effects of logging and fuels reduction activities will not significantly affect overall climate or adverse weather impacts on wildlife.**

It is clear the Forest Service has no interest in addressing climate change, as evidenced by a summary of a Forest Service memo provided in Appendix B of this Objection. The agency is interested in maximizing logging, regardless of how this will impact climate change. This is readily apparent in the Dry Riverside's assessment of climate change effects of this project. Short-term increases in carbon, and short-term reduction in carbon sequestration, as reported to be balanced out, and actually improved at some future date when new young trees sequester more carbon than existing mature trees. When this is expected to happen, and the increased atmospheric carbon that will exist until this happens, was never defined. As such, this is a violation of the NEPA, as conclusions are provided without substantiating information.

In particular, the agency demonstrates an extremely callous attitude about how climate change affects western forest birds by increasing forest temperature in the summer, decreasing forest temperature in the winter, and adverse impacts of severe weather events. As was noted by D'Ammassa (2020) and the USGI (2020) the impacts of severe weather events on birds can be catastrophic. These severe weather impacts will increase in all forests where vegetation levels are reduced, including all the proposed treatments for the Dry Riverside and Betty Baptiste projects.

We have included a summary of various recent news reports on the effects of climate change on humans, as well, in Appendix B. Somehow the Forest Service remains indifferent to these severe impacts, although the rationale for this indifference remains unknown.

The justification for increasing the ongoing impacts of climate change for the agency rides wholly on the claim that forest thinning is required to protect these landscapes and homes from fire. This claim continues to be contradicted by many sources, including an extensive review by the John Muir Project (2022), and by a recent report in Forest News (2023). In addition, a recent article in Scientific American (2023) noted that humans are "the fire species," because currently, the large majority of fires are caused by humans, not lightning. Thus increasing the access of humans into forested landscapes by building more roads is a strategy to increase fire occurrence, not reduce it, as is the case for the Dry Riverside Project.

## **Appendix A for the Objection against the Dry Riverside Project on the Flathead National Forest filed by NEC, AWR, CWF, Y2U and CBD on December 20, 2023.**

Appendix A contains relevant portions of the following reports and/or publications:

Benkman, C. 1003. Logging, conifers and the conservation of crossbills. *Conservation Biology* 7:473-477.

Black, H., R. Scherzinger, and J. Thomas. 1976. Relationships of Rocky Mountain Elk and Rocky Mountain Mule Deer habitat in timber management in the Blue Mountains of Oregon and Washington. Pages 11-31 in *Proceedings of the Elk-logging-roads symposium*, University of Idaho December 1976.

Bull, E., C. Parks, and T. Torgersen. 1997. Trees and logs important to wildlife in the Interior Columbia River Basin. USDA Forest Service Gen. Techn. Report PNW-GTR-391.

Bull, E., and R. Holthausen. 1993. Habitat use and management of pileated woodpeckers in Northeastern Oregon. *Journal of Wildlife Management* 57:335-345.

D'Ammassa, A. 2020. 'Hundreds of thousands, if not millions': New Mexico sees massive migratory bird deaths. *Farmington Daily Times* 9/12/20.

Defiance Canyon Raptor Rescue. 2022. Cal Fire burns next to Bald Eagle nest, eaglets die. Daily Kos April 15, 2022.

Drew, M. 2023. Increased threats to wolverine identified in latest U.S. Fish and Wildlife Service Report. Flathead Beacon October 21, 2023.

Fisher, J., S. Bradbury, B. Anholt, L. Nolan, L. Roy, J. Volpe, and M. Wheatley. 2013. Wolverine (*Gulo gulo luscus*) on the Rocky Mountain slopes: natural heterogeneity and landscape alteration as predictors of distribution. Can. J. Zool. 91:706-716.

Forest News. 2023. How homes can survive wildfire. Forest News Summer 2023.

Horowitz, E. 2023. Life after death: the amazing productivity of dead trees, both standing and fallen. Montana Outdoors, March—April 2023.

John Muir Project. 2022. "Fuel Reduction" logging increases wildfire intensity. 1015 15<sup>th</sup> Street NW, Suite 600, Washington, DC 20005.

Lewis, C., K. Hodges, G. Koehler, and L. Mills. 2011. Influence of stand and landscape features on snowshoe hare abundance in fragmented forests. Journal of Mammalogy 92:561-567.

Lyon, J., T. Lonner, J. Weigand, C. Marcum, W. Edge, J. Jones, D. McCleerey, and L. Hicks. 1985. Coordinating elk and timber management: final report of the Montana Cooperative Elk-Logging Study 1970-1985. Montana Department of Fish, Wildlife and Parks, Bozeman, MT.



North American Bird Conservation Initiative. 2022. State of the Birds, United States of America 2022. Stateofthebirds.org.

Robinson, S., J. Grzybowski, S. Rothstein, M. Brittingham, L. Petit, and F. Thompson. 1992. Management implications of cowbird parasitism in neotropical migrant songbirds. In Status and Management of Neotropical Migratory birds, Rocky Mountain Forest and Range Experiment Station, Gen. Techn. Report RM-229.

Sauder, J. and J. Rachlow. 2014. Both forest composition and configuration influence landscape-scale habitat selection by fishers (*Pekania pennati*) in mixed coniferous forests of the Northern Rockies. Forest Ecology and Management 314:75-84.

Schwartz, C., M. Haroldson, and G. White. 2010. Hazards affecting grizzly bear survival in the Greater Yellowstone Ecosystem. Journal of Wildlife Management 74:654-667.

Scientific American. 2023. The fire species; data reveal how California's wildfires start.

Scrafford, M., T. Avgar, R. Heeres, and M. Boyce. 2018. Roads elicit negative movement and habitat-selection responses by wolverine (*Gulo gulo luscus*). Behavioral Ecology doi:10.1093/beheco/arx182.

Skaar, P. 1996. Montana bird distribution. Montana National Heritage Program Special Publication No. 3.

Smith, C. and S. Aldous. 1947. The influence of mammals and birds in retarding artificial and natural reseeded of coniferous forests in the United States. *Journal of Forestry* 45:361-369.

Smith, C. and R. Balda. 1979. Competition among insects, birds and mammals for conifer seeds. *American Zoologist* 19:1065-1083.

Stewart, F. N. Heim, A. Clevenger, J. Paczkowski, J. Volpe, and J. Fisher. 2016. Wolverine behavior varies spatially with anthropogenic footprint: implications for conservation and inferences about declines. *Ecology and Evolution*.  
DOI:10.1002/ece3.1921.

Squires, J., N. DeCesare, J. Kolbe, and L. Ruggiero. 2010. Seasonal selection of Canada lynx in managed forests of the Northern Rocky Mountains. *Journal of Wildlife Management* 74:1648-1660.

Suring, L., D. Crocker-Bedford, R. Flynn, C. Hale, G. Iverson, M. Kirchhoff, T. Schenck, L. Shea, and K. Titus. 1993. A proposed strategy for maintain well-distributed, viable populations of wildlife associated with old-growth forests in Southeast Alaska. Report of an Interagency Committee. Review Draft, Juneau, Alaska 1993.

Tyers, D. 2003. Winter ecology of moose on the Northern Yellowstone winter range. Ph.D. Thesis, Montana State University, Bozeman.

U.S. Fish and Wildlife Service. 2017. Species status assessment for the Canada lynx (*Lynx canadensis*): contiguous United States Distinct Population Segment.

U.S. Fish and Wildlife Service. 2023. Standing analysis for effects to whitebark pine (*Pinus albicaulis*) from low effect projects and whitebark pine restoration and recovery activities within Montana and Wyoming. 1/17/23.

USGS. 2020. Starvation, unexpected weather to blame in mass migratory songbird mortality. USGS National Wildlife Health Center. December 14, 2020.

Wells, G. 2011. Clark's Nutcracker and whitebark pine: can the birds help the embattled high-country pine survive? Science Findings 130, February 2011.

**Appendix B for the Objection against the Dry Riverside Project on the Flathead National Forest filed by NEC, AWR, Y2U, CWF, and CBD on December 20, 2023.**

Appendix B contains copy of a Forest Service memo addressing concerns about meeting timber volume levels in the agency, with no mention of climate change concerns, as well as a selection of various news reports on the ongoing effects of climate change.