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September 5, 2023

Objection Reviewing Officer

Diamond Creek Forest Management Project

U.S. Forest Service, Intermountain Regional Office

Hansen Federal Building, Room 4016

324 25th Street

Ogden, Utah 84401

RE: OBJECTION AGAINST THE DIAMOND CREEK FOREST MANAGEMENT PROJECT

1. List of Objectors

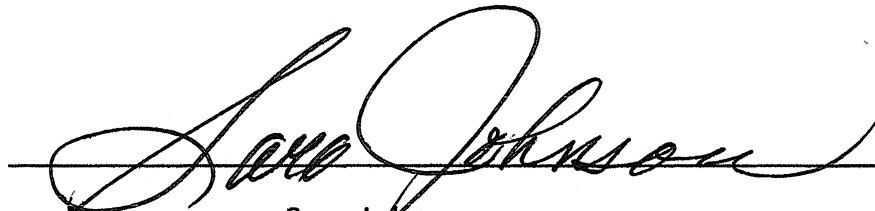
Sara Johnson, Lead Objector, Native Ecosystems Council (NEC), [REDACTED]
[REDACTED]

Mike Garrity, Director, Alliance for the Wild Rockies (AWR), [REDACTED]
[REDACTED]

Katie Fite, Public Lands Director, Wildlands Defense (WD), [REDACTED]
[REDACTED]

Jason Christensen, Director, Yellowstone to Uintas Connection (Y2U), [REDACTED]
[REDACTED]

Signed for Objectors this 5th day of September, 2023



Sara Johnson

2. Name and Location of Project being Objected to.

Diamond Creek Forest Management Project on the Soda Springs and Montpelier Ranger Districts of the Caribou-Targhee National Forest

3. Responsible Official(s)

Bryan Fuell, District Ranger of the Soda Springs Ranger District

Michael Duncan, District Ranger of the Montpelier Ranger District

4. Connection between the Objection and past Public Involvement

On October 17, 2022, Objectors submitted scoping comments for the Diamond Creek Forest Management Project. On November 12, 2022, NEC and AWR submitted 60-day comments for planned openings over 40 acres for the Diamond Creek Forest Management Project.

In our 60-day comments, we noted that the planned clearcuts were designed and planned without any conservation strategies for almost all wildlife, including

many “at risk” species. Random habitat removal is not a conservation strategy for at-risk species. We also noted that clearcuts do not replicate burned forest; clearcuts do not have the snag forests that burned forests have, and are thus not comparable habitat for wildlife. The large openings eliminate habitat for a forest sensitive species, the goshawk, with openings over 4 acres not being suitable habitat. Large openings also remove many territories of a key prey species for the goshawk, the red squirrel; the total loss of large openings planned for the Diamond Creek Forest Management Project will be roughly 275 red squirrel territories. Large clearcuts will reduce productivity of this sensitive species, as well as increase habitat for a competing raptor, the red-tailed hawk who does well in open forest habitats. Large clearcuts will also eliminate habitat for another forest sensitive species, the three-toed woodpecker. The current best science recommends large blocks of unmanaged forest habitat for this species, and clearcuts fragment these habitat blocks for many decades. As well, large clearcuts fragment older forest blocks required by a neotropical migratory bird, the brown creeper, an at-risk species on this forest. The greater amount of clearcut habitat within a local landscape, the lower will be the potential for habitat for these sensitive species. As such, clearcut harvesting has to not only be limited on the landscape, but designed to retain large blocks of older, unmanaged forest habitat for forest sensitive species. The habitat gaps created by clearcuts also create movement barriers for wildlife, such as the at-risk species the northern flying squirrel. Clearcuts also create barriers for forest carnivores, such as the pine marten and Canada lynx. And clearcuts eliminate elk security areas for several decades until hiding cover reestablishes. Given that elk security areas of hiding cover need to be at least 250 acres in size, clearcuts have to be carefully planned to retain at least 30% security within a given landscape, since recommendations for elk security direct that it be well distributed across a landscape. We supported these issues with relevant literature and/or reports, included in an appendix to these comments. We are carrying forward these issues into this objection because the National Environmental Policy Act (NEPA) analysis for the Diamond Creek Forest Management Project did not evaluate how clearcuts will impact wildlife habitat distribution or carrying capacity for forest sensitive and at-risk species, in violation of the NEPA, the Migratory Bird Treaty Act (MBTA), and the National Forest Management Act (NFMA).

In our 10/17/2022 scoping comments for the Diamond Creek Forest Management Project, we raised 28 issues. These included a challenge to the claim that logging reduces fire risk and intensity; that the Revised Forest Plan (RFP) for the Caribou National Forest has no specific “desired conditions” (DCs) for any wildlife species as opposed to DCs defined for vegetation so that lack of wildlife DCs in a project area are not defined for any project; the claim that dead trees create poor forest health as dead trees are a key ecosystem component for wildlife; the claim that fires will be “uncharacteristic” without logging without any actual definition of this term or how it is measured; the RFP is outdated as it does not address the climate change crisis, including for wildlife; the addition of many more new roads will increase wildfires caused by humans, and continue to degrade wildlife habitat; the purpose of clearcutting older forest stands is for timber production, instead of a loss of habitat value to wildlife; there needs to be a valid analysis of project impacts on 14 forest bird species identified as “species at risk” on this forest, as well as 15 rangeland “species at risk:” the agency needs to clearly define how all these at-risk species were considered in the project design, including based on wildlife surveys; the tree and other plant species to be burned in prescribed burning areas need to be identified; the at-risk wildlife species that will be impacted by burning need to be identified and evaluated; the livestock and wildlife browsing levels on aspen in all proposed treatment units needs to be provided to the public, including meeting the 10-20% allowed browsing level; the monitoring results and published science is needed to be provided to the public to support claims that burning big game winter range will increase big game use and populations instead of increasing forage for livestock; the agency needs to define why burning trees and shrubs, including juniper, increases instead of decreases forage for big game and other wildlife; we requested that the agency provide the survey data obtained for 4 sensitive raptor species that may occur in the project area, including the boreal, great gray, flammulated owls and goshawk; we would like to know what mitigation measures for these species for nesting habitat protection have been included in the project design; the stated purpose to restore aspen sprouting does not include reduction and protection from livestock grazing, which is likely the major cause of a loss of aspen regeneration; we requested that implementation of the Caribou RFP direction for old growth be clearly defined for the project; we requested an analysis as to why removal of conifers in aspen stands improves wildlife habitat; we requested that maps be

provided for management areas, roadless areas, elk security areas, old growth locations, hiding cover locations, sage grouse leks, sharp-tailed grouse leks, noxious weed locations, and general locations of all wildlife surveys for at-risk species in the project area; define how linkage areas for lynx and wolverine will be protected in the project area.

Some of this requested information was provided in the NEPA analyses for this project, while some of it was not. For example, it appears that management of sage grouse and sharp-tailed grouse is not an issue, since their habitat does not generally occur in the project area. We also noted that the information on conifer and aspen old growth provided was unclear, as the RFP addresses mature/late seral forest habitat together, and also does not separate out conifer old growth, conifer/aspen old growth, and aspen old growth separately. It is impossible to determine from the information provided as to where actual old growth conifer and aspen habitat exists in the project area as defined by the Intermountain Region definitions as per Hamilton (1993). RFP definitions of "late seral forest" are not the same as old growth, so we could not determine actual current or planned levels of valid old growth in the project area, or as well. There is no actual definition of conifer/aspen old growth, which is likely most of what occurs in this landscape. Given the faults of the RFP and lack of clarity of old growth management by forest type, we are raising management of old growth as a major concern for this project due to its huge importance to wildlife, including both western forest birds, most of which are neotropical migratory birds.

We note that the NEPA analysis for this project also did not address why the agency is not required to consider the effects of this project on climate change. This issue is especially relevant to the impacts on forest wildlife. Given the ongoing decline of many species of western forest birds, eliminating habitat along with increasing the adverse effects of climate change require analysis for any vegetation management project, including the Diamond Creek Forest Management Project.

5. Remedy

The Diamond Creek Forest Management Project is a good example of what is wrong with the Caribou's RFP. It does not actually require any old growth management for wildlife, as this is defined as mature/late seral forest. None of this has to be old growth. A valid old growth management strategy needs to be developed in a RFP, which requires at least 20% old growth for every watershed area of about 10,000 acres, along with 20% replacement old growth. No logging or burning of any kind should be allowed, as these remove old growth characteristics. A valid snag management strategy also needs to be developed in a RFP. Leaving a few snags in logging units was identified as an invalid conservation strategy for wildlife almost 30 years ago. This practice of having meaningless conservation strategies for wildlife needs to be corrected for both snags and old growth before any further vegetation projects are planned and implemented. In addition, habitat conservation standards need to be completed and implemented for at species at risk on the forest, including for forests. Currently, the only conservation plans are for the goshawk, great gray owl, flammulated owl, and boreal owl. And these plans actually do not require any actual old growth be provided for these 4 species. These conservation plans will limit the amount of habitat loss that can occur within a given landscape, including clearcutting and percentage of habitat/travel barriers allowed. The development of these conservation strategies for almost all wildlife on the forest is needed to address the RFP's claim that meeting the Desired Conditions for vegetation ensures that all wildlife species will remain viable on the Forest. To date, there has been no actual analysis to support this claim, and as such, implementation of vegetation DCs as a conservation measure for wildlife is a violation of many laws, including the NEPA, the NFMA, the ESA and the MBTA. Also, the RFP needs to include conservation strategies for all forest types, including aspen/conifer forests. These forest types are being routinely targeted for treatment, to remove conifers, when there is no science to support this action. In fact, conifer/aspen mixed forests have a very high value to wildlife, and should be emphasized, not removed. Along with this, the RFP needs to include a valid analysis of why aspen stands are not regenerating. The RFP claims this is due to conifers, yet over half of the aspen on the forest do not even have conifers in them, so how can conifers be the reason

for a lack of regeneration in these 158,000 acres of aspen? The RFP needs to address the ecological crisis that livestock grazing is having on aspen. If there was ever a “restoration” need, it is to save aspen from the cows. Also, a RFP for the Caribou-Targhee National Forest needs to address how the impacts of climate change need to be considered in all vegetation treatments that affect wildlife. The increase of severe weather events, as well as the general increase in weather severity due to vegetation treatments, such as increased winds and forest temperatures, need to be addressed in the forest-wide strategy to preserve forest wildlife. This would include addressing the impact of clearcutting, which results in higher general temperatures within a given landscape, as well as high wind speeds within forests. And to address fire risk, the agency needs to evaluate how road densities affect fire risk, and manage roads accordingly.

Given the above, we request that the Diamond Creek Forest Management Project be shelved until a revised forest plan can be developed for the Caribou-Targhee National Forest that addresses wildlife conservation and climate change.

6. Attachments

This objection includes one attachment, Appendix A, which provides relevant portions of cited reports and/or publications. These reports are in addition to those previously provided on our 60-day comments.

7. Violations of Laws and Policy that will Result if the Diamond Creek Forest Management Project is implemented.

A. The proposed project will result in violations of the National Forest Management Act (NFMA), the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), the Administrative Procedures Act (APA), and the Migratory Bird Treaty Act (MBTA); the following are examples of why these violations will occur.

The following are examples of how violations of the NFMA, NEPA, APA, ESA and MBTA will be triggered from implementation of the Caribou RFP as well as the site specific Diamond Creek Forest Management Project.

- 1. The RFP lacks a valid conservation strategy for old growth forests, and as a result, site-specific projects continue the loss of this essential forest habitat for wildlife, such as will occur in the Diamond Creek Forest Management Project.**

The Caribou RFP FEIS (3-18) shows that aspen habitat is 158,000 acres, which is 29% of total forest habitat (550,000 acres), and 14% of the forest landscape (1,100,000 acres). Aspen/conifer mix forests are 110,000 acres. This is 20% of all forest, and 10% of the entire forest landscape. Conifer forests represent 282,000 acres of the forest; this is 51% of the forest habitat and 26% of the forest landscape. Although Hamilton (1993) defines aspen and conifer old growth, there is no definition for aspen/conifer old growth. This is apparently conifer old growth with some aspen. The RFP defines old growth as having sufficient large trees to be classified as mature and late seral forest. This is not the Hamilton (1993) definition of old growth, or the Northern Region definition of old growth (USDA 1990 by Warren).

The RFP FEIS at 3.227 states there is 24% conifer old growth. The recommended level of old growth for forest birds is 20-25% (Montana Partners in Flight 2000). So the current level of conifer old growth is just barely at recommended levels for forest birds. These include at least 20 forest bird species (USDA 2018), including sensitive species on the Caribou as the great gray, boreal, flammulated owls, and the goshawk. So since RFP implementation, conifer old growth forests have continued to be logged, which is allowed by the RFP. In fact, the RFP encourages the logging of conifer old growth to promote aspen stands. This could be occurring on the 110,000 acres of conifer/mixed aspen stands on the forest. Thus the impact of the RFP on conifer old growth forests, and associated wildlife species, is unknown. Past logging in the Diamond Creek Project Area has also had

unknown impacts on conifer old growth. The Caribou RFP requires an amendment to address this old growth issue, and to implement a conservation strategy for 20 or more associated wildlife species, including 4 sensitive raptor species on this forest.

2. The Caribou's RFP emphasis on converting mixed conifer/aspen stands to aspen stands has not biological basis or conservation value for wildlife, and is based on timber production.

The RFP FEIS does not define why conifers should be logged out of aspen stands when they comprise more than 10% canopy cover. These would still qualify as conifer stands, and thus could still be conifer old growth forests. Even if they are not old growth conifer stands, these mixed stands have a high value to wildlife. And as is noted in the RFP FEIS at 3-18, aspen/conifer stands are not as abundant as just aspen stands (20% versus 29% of the forests). So the rationale as per habitat diversity is also not clear. Why increase the more abundant forest type at the expense of a less-abundant forest type (aspen/mixed conifer). The FEIS does not define why conifers in aspen need to be removed to benefit wildlife. There is no actual discussion to support this management emphasis, in violation of the NEPA. We have provided just a few examples of why conifer/aspen mixed forests are highly valuable to wildlife, and need to be preserved. For example, aspen/mixed conifer stands are selected for nesting habitat by 2 Caribou at-risk species, the sharp-shinned hawk (Joy et al. 1994) and Williamson's sapsucker (Conway and Martin 1993). The Williamson's sapsucker has noted recent significant declines (North American Bird Conservation Initiative 2022). It has also been identified as a Bird of Conservation Concern by the U.S. Fish and Wildlife Service in Bioregion 10 (USFWS 2021). There have been no surveys completed for either of these species for the Diamond Creek Forest Management Project. Other examples include the value of conifer forests, which retain their leaves throughout the year, as hiding cover for red squirrels to avoid predation (Goheen and Swihart 2005), and likely many other forest species as well, including raptors identified as sensitive species on the Caribou Forest. Studies have also identified that mixed conifer/deciduous forests are selected as foraging habitat by some bat species (Kalcounis et al. 1999).

And research in the Black Hills of South Dakota has noted that white-tailed deer preferentially selected mixed conifer/aspen stands as foraging sites (Krantz and Linder 1973). In particular, mixed conifer/aspen stands will retain hiding cover for big game species throughout the year, after aspen trees drop their leaves. This means that mixed conifer/aspen stands, rather than just aspen stands, are essential for hiding cover for elk security. So for big game management in particular, protection of mixed conifer/aspen stands is essential to provide security, as well as thermal cover on winter ranges in the winter. Aspen stands will not provide thermal cover on big game winter ranges.

The Caribou RFP needs to be amended to correct the emphasis on removing conifers from aspen stands, due to the loss of both old growth habitat and highly valuable habitat for both game and nongame wildlife.

3. The Caribou RFP needs to be amended to include a valid conservation strategy for wildlife associated with snag forests, to meet the requirements of the MBTA and NFMA, as well as the NEPA.

The Caribou RFP “assumption” that providing snags in harvest units ensures the persistence of associated wildlife species has never been validated through any monitoring. This lack of validation occurred even though the RFP carried over this invalid snag management strategy from the previous forest plan. The failure of leaving a few snags in harvest units for sustaining associated species was noted back in 1989 (Goggans et al. 1989), as well as in 1997 by the Pacific Northwest Research Station of the Forest Service (Bull et al. 1997). Thus continued use of this invalid conservation strategy in the Caribou RFP is a clear violation of using the current best science, as well as forest plan monitoring, to ensure persistence of snag-associated species. These are on average 25% of forest birds (Bull et al. 1997). On the Caribou Forest, they likely include at least 20 bird species (USDA 2018). There was no analysis in the RFP FEIS as to why a given number of snags per acre in forest stands would ensure persistence of associated species. The analysis simply identified the average number of snags used in woodpecker

territories, but ignored the fact that these snags “occurred” in forests, not harvest units. The requirement that snags occur within forests, and not clearcuts or commercial thinning units, is actually acknowledged in the Diamond Creek Wildlife Report. This report at pages 71-72 include the following;

Three-toed woodpeckers often focus on areas of large-scale wildfires and large insect epidemics, as these areas provide important habitat components they need (snags for nesting and large numbers of insect as a food base); large areas of snag habitat post-fire, or bark beetle outbreaks that attract this species do not occur within the project area; clearcutting could likely discourage three-toed woodpeckers from using the created opening due to the lack of mature habitat that could be used for foraging and nesting; three-toed woodpeckers typically inhabit disturbed forests, including burned, diseased and insect-infested locations; vegetation treatments would change habitat conditions gradually over 10-15 years, and only affect 14% of the project area; the project area would still contain suitable habitat.

The current snag management strategy in the Caribou RFP is not only a violation of the NFMA, for claiming that an invalid management strategy will maintain over 20 forest bird species, but is also a violation of the NEPA for providing invalid mitigation measures (leaving snags in harvest units) as compensation for logging. The NEPA requires that mitigation measures be discussed as to their effectiveness in eliminating significant adverse impacts. The current RFP snag strategy does not eliminate the significant adverse effects of logging on snag-associated. The current Caribou RFP snag management strategy is also a violation of the MBTA, since it has extremely limited conservation value for over 20 forest bird species. In fact, this snag management strategy ensures continued habitat loss for these forest birds, which over the life of a forest plan, is likely a huge loss of carrying capacity for these forest birds. This severe adverse impact is not identified in the RFP FEIS, in violation of the NEPA.

The RFP emphasis on removing conifers from aspen stands is also a severe adverse impact on snag-associated species, because conifers will provide larger snags for wildlife, such as the great gray owl, which nests on quite large dead snags.

4. The proposed prescribed burning within IRAs is a violation of the Idaho Roadless Rule because the agency has not demonstrated this will maintain/improve wildlife habitat, or will prevent catastrophic fire.

The agency claims that prescribed burning on over 1,600 acres in an IRA is needed to prevent catastrophic or severe wildfire. These effects are never defined. What constitutes catastrophic or severe wildfire is not defined to the public so the justification for this management is also not defined to the public, in violation of the NEPA. The Vegetation Report seems to suggest that catastrophic or severe fire has too many large patches of severe burn, but these are never quantified. What size and percentage of a fire is severely burned in order to qualify as a severe or catastrophic fire? Measures of fire intensity as per severe or catastrophic fire are also not defined in the NEPA analysis for this project. The criteria for low severity (less than 25% of dominant vegetation killed), moderate severity (from 35-75% of the vegetation killed) to high severity (greater than 75% of the vegetation killed)(USDA 2018) that create a severe or catastrophic fire are never defined to the public. Also, there are no maps of the areas of the project area that have the potential for severe or catastrophic fire. Where are these potential areas located in the project area, and how were they inventoried and identified? The Vegetation Report suggests that the entire project area is at high risk for severe fire. The supporting analysis remains to be provided.

The effects of prescribed burning in the IRA on wildlife is claimed to be beneficial, even though effects on 67 species of western forest birds is not defined. It is noted that almost 1,000 acres of old growth forest will be burned, and this is claimed to be a wildlife benefit. The total amount of old growth as per Hamilton (1993) in the project area is unknown, and it is not clear even minimal levels of

old growth exist for the 20 or more bird species associated with this old growth. A loss of old growth cannot be claimed as a wildlife benefit without some type analysis. In addition, it is not clear why killing forest birds with burning up the forests represent a benefit to these birds. There is also the indirect, toxic impact of smoke on birds, which has been identified as a potential severe impact with direct killing (Defiance Canyon Raptor Rescue 2022). There were also no specific habitat needs that need to be restored for forest birds in the affected IRA. For example, it is not defined that old growth needs to be reduced for forest birds. The effect of fragmenting the Stump Creek IRA with burned forest across thousands of acres will also increase the level of cowbird parasitism for forest birds (Robinson et al. 1992). Overall, this prescribed burning is clearly a violation of the MBTA. In addition, the affected IRA (Stump Creek) is noted to be big game winter range. The Wildlife Report and draft EA did not define why burning up over 1600 acres of forest will improve or “restore” big game winter range. As is required by the NEPA, the agency cannot meet its requirements by just providing conclusions; the actual basis for these conclusions need to be provided. The habitat objectives for big game winter range, why these are not being met currently, and why burning up forage, hiding cover, and thermal cover, will maintain or improve this winter range needs to be provided to the public. It is not clear what trees and shrubs need to be removed/reduced to improve this big game winter range. Without this information, the claims that burning this IRA will improve big game winter range are a NEPA violation.

5. The agency failed to define why clearcuts, either less than or over 40 acres, meets the desired conditions for 67 species of western forest birds.

NEC and AWR submitted extensive examples of why clearcuts impact wildlife, with impacts increasing with the size of the clearcut. Although one action alternative reduced the size of clearcuts, the total acreage of clearcuts was not reduced for any action alternative. So this issue was not addressed as per the adverse impacts that clearcuts, including those 40 acres or less, were included in an action alternative, as is required by the NEPA.

6. The proposed project is a violation of the MBTA and the NEPA.

Not only will many thousands of acres of forest bird habitat be degraded/removed with this project, without any conservation strategies being required to be implemented, but the claimed mitigation measures that will reduce mortality of birds are a violation of the NEPA as these are unlikely to actually work. The agency claims that burning crews will “look for bird nests” and avoid them if found. There was no discussion as to how many bird nests are likely to be saved with this action, or specifically how they will be protected from burning disturbances. In addition, the agency has made no genuine effort to locate nests of the great gray and boreal owls, or as well the flammulated owl that may be present in this landscape. It is noted that both the great gray owl and boreal owl occur in the project area, but no nests have been located. This process is very labor intensive, and apparently the agency is not willing to put forth the effort and dollars to actually achieve this RFP direction. Even the locations of observed boreal and great gray owl areas were not provided in the Wildlife Report, so it is unknown how their locations are affected by the proposed project. It is stated that the RFP direction for these species is being implemented, but how this is being done is not known. This information needs to be provided to the public to define project implementation management by the agency.

The goshawk, sharp-shinned and Cooper’s hawks are all neotropical migratory birds (Idaho Fish and Game Department Nongame Leaflet #10). There will be no surveys done for the sharp-shinned hawk or Cooper’s hawk, so the number of nesting area that will be disturbed and/or destroyed for this project are unknown. Also, the sharp-shinned hawk is noted to be an “at risk” species on the Caribou. There are no conservation strategies for either of these neotropical migratory, low density species. The impact of this project on these birds is unknown, while the impact on the third accipiter that is a neotropical migratory bird, the goshawk, will clearly be adverse. The two territories in the project area are subject to the adequate RFP direction for this sensitive species (Patla 1994). As well, this species has been documented to be sensitive to logging activities (Patla 1997, Patla 2005). This project will clearly degrade their habitat and reduce productivity.

low density species. The impact of this project on these birds is unknown, while the impact on the third accipiter that is a neotropical migratory bird, the goshawk, will clearly be adverse. The two territories in the project area are subject to the adequate RFP direction for this sensitive species (Patla 1994). As well, this species has been documented to be sensitive to logging activities (Patla 1997, Patla 2005). This project will clearly degrade their habitat and reduce productivity.

Openings and lack of old growth will both degrade goshawk habitat in the Diamond Creek Project Area. The size of openings allowed in goshawk foraging habitat is up to 40 acres, which is inconsistent with the current best science, which limits openings in goshawk foraging habitat to 1-4 acres (Reynolds et al. 1992). This inconsistency was noted on the Targhee Forest Plan Revision by Susan Patla (Patla 1994). Although there was no map provided of the 2 identified goshawk territories recently discovered in the Diamond Creek Project Area, the agency claims no large clearcuts will occur in either territory. This assumes that areas where these large clearcuts will occur are not occupied by goshawks. It was not clear how this was determined. The claim that the large clearcuts will not adversely impact this forest sensitive species remain questionable without maps of known goshawk territories across this landscape overlaid with all planned clearcuts over 1-4 acres.

The Caribou RFP also does not actually require any old growth within goshawk territories, or their nesting areas. Instead, mature/late seral forest is required, which is not old growth. So again, implementation of the Diamond Creek Project is not using the current best science for goshawks, including identifying the location and amount of old growth within nesting, postfledging, and foraging habitat as per the current best science (Reynolds et al. 1992). These habitat features are likely important to the persistence of goshawks in various territories, as timber harvest has been demonstrated to impact occupancy of goshawk territories and nesting areas over time (Patla 1997; Patla 2005).

7. The agency failed to define how the Diamond Creek Forest Management Project will affect climate change and as a result, wildlife.

There is no analysis in the Diamond Creek Forest Management Project as to how much the project will cause losses in carbon sequestration. For example, climate change increases the likelihood of severe weather events, which impact wildlife, especially during the nesting season and early postfledging period for birds. These severe weather events (heavy precipitation, severe cold and/or heat, severe winds) are likely reducing nesting success for many forest birds, at a time when they are experiencing significant population losses. As noted by Rosenberg et al. (2020) North American landbirds have lost over 3 billion in numbers since the 1970s. This report noted that 64% of 67 species of western forest birds are in decline. The North American Bird Conservation Initiative (2022) claimed that about half of 46 western species of forest birds have declining population trends, including the Williamson's sapsucker. Commercial thinning of forests will increase their heat levels, and overall reduce their values as thermal cover for birds. Clearcutting will have even more extreme effects, with increased landscape temperatures due to a lack of shade, and increased wind effects due to the removal of forests. The Diamond Creek Forest Management Project will clearly have adverse impacts on all western forest birds by increasing the impacts of local weather. Added to this is the reduction of carbon sequestration that will result from logging and burning, which contributes to climate change. Reduction of vegetation means a reduction in carbon uptake in a forest, as well as reduction of forest bird habitat. The Draft Decision notice for this project did not address to the public what the overall benefits will be to the public by triggering these adverse effects. Clearly, there was no analysis of the No Action alternative in this regard, which would demonstrate it would be the preferred action for the public and for wildlife.

There was also no analysis of the cumulative impacts of the proposed project on the effects of climate change (increases in severe weather events), a long[term loss of over 4,000 acres of bird habitat, the killing of an undisclosed number of forest birds due to logging and prescribed burning, and the inevitable destruction

OUTDOORS REPORT



4,000 Miles of groomed snowmobile trails in Montana.

Waterfowl up, other birds down

The latest report on U.S. bird populations offers a tale of two trends, one hopeful, one dire. Published by 33 leading science and conservation organizations and agencies, the "2022 U.S. State of the Birds Report" is the first comprehensive look at the nation's birds since a landmark 2019 study showed the loss of nearly 3 billion birds in the United States and Canada in 50 years. Key findings from the new report:

- ▶ Waterbirds and ducks in the U.S. have increased by 18 percent and 34 percent, respectively, since 1970.
- ▶ U.S. grassland birds are among the fastest declining, with a 34 percent loss during the same period.
- ▶ Over half of U.S. bird species are declining.

The report advises that meeting declining birds' needs will require a strategic combination of partnerships, incentives, science-based solutions, and public will to dramatically scale up the conservation of fast-disappearing bird habitats such as native grasslands. ■



Peak migration is usually the last week of March. But check the Freezout web page before you go.

WILDLIFE WATCHING

FWP web page updates Freezout waterfowl count

Each year in late winter, photographers and bird watchers thrill to the sight of snow goose "tornadoes" rising up from Freezout Lake, about 20 miles northwest of Great Falls. But the spectacle is witnessed only by those who show up on the right days.

Tens of thousands of migrating ducks, geese, tundra swans, and other birds pass through this area on their way to northern nesting grounds. The lake and surrounding barley fields provide an essential pitstop for resting and refueling during the long journey.

Because the birds stay only a few weeks, visitors need to know what stage the migration is in before making the drive to Freezout Lake

Wildlife Management Area (WMA). On average, the last week of March sees the largest number of migrating waterfowl, but that can change due to storms and other weather.

FWP has a new web page that includes daily Freezout Lake updates during spring and fall migrations. The page also includes information on the WMA's history and management, as well as hunting, wildlife watching, and trapping opportunities and a detailed map.

To view the page, visit fwp.mt.gov and click on the Conservation tab at the top. From the menu on the left, select "WMAs," then search for "Freezout Lake WMA." On the Freezout Lake WMA page, click on the "Freezout Lake WMA Story Map" link under the photo. ■

CLIMATE

State climatologist predicts even warmer days ahead

Dr. Kelsey Jencso, state climatologist with the Montana Climate Office, believes that by 2069, some areas of Montana can expect up to five more weeks of above-90-degree days each year.

During a Zoom conference on climate change this past November, Jencso explained his prediction by pointing out that, over the past 65 years, the state's temperature has increased 0.42 degree per decade while the national average is 0.26 per decade. That's an increase of 2.7 degrees in the past 65 years, which is also above the national average.

The greater rate of change is due to Montana's higher altitude, making it more sensitive to temperature

fluctuations, Jencso told the conference, organized by the Montana League of Women Voters. He also said:

▶ Total precipitation from spring rains has increased by 1.3-2 inches per year in eastern Montana and declined by 0.9 inch in western Montana.

▶ By mid-century, computer models predict a 5-degree temperature increase in eastern and north-central Montana and a 4-degree increase in central and western Montana.

▶ Also by mid-century, eastern Montana is expected to have 39 more days above 90 degrees each year and western Montana will see 10 to 15 additional days of 90-degree plus temperatures. ■



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The Week
8/11/23

Talking points

Global boiling: An ominous warning

The era of global warming is over, said Madison Pauly in *Mother Jones*. We're now in the age of "global boiling." That's the term United Nations Secretary-General António Guterres used last week after scientists reported that July was likely the world's hottest month on record, at least 0.4 degrees Fahrenheit above July 2019, the previous warmest. The



Treating a heat stroke patient in Phoenix.

signs of global boiling are everywhere: wildfires raging in Canada and around the Mediterranean, water temperatures hitting 101 degrees off Florida. This human-caused climate chaos, Guterres warned, is "just the beginning." Perhaps the future will look like Phoenix, said Jack Healy in *The New York Times*. The city has endured a "month in hell"—31 days exceeding 110 degrees. Residents have been hospitalized with burns after falling "on pavement that can heat up to 180 degrees" and the city has deployed "trailer-size coolers to store bodies." Phoenix has reported 25 heat-related deaths this year; another 249 are under investigation.

Extreme heat "threatens virtually every aspect of human health," said Dr. Leana Wen in *The Washington Post*. Heat stroke, which occurs when ambient temperatures are so high that the body can't cool down, can cause organ failure within minutes. Research shows that high temperatures

can also "exacerbate underlying medical conditions by straining the heart, lungs, and kidneys"; impair sleep; and "worsen depression, anxiety, and suicide rates." Then there's the economic toll, said Coral Davenport in *The New York Times*. In Southern California, Amazon drivers and warehouse workers have gone on strike in part to protest working conditions that can top 100 degrees; in Michigan, "construction crews are working shortened days because of heat." One study found that loss of labor due to heat exposure cost the economy \$100 billion in 2020. That figure is predicted to hit \$500 billion annually by 2050.

The basic rhythms of human behavior are being reordered as the mercury rises, said Scott Simon in *NPR.com*. In Italy, the health ministry has "cautioned people not to walk outside, and to avoid wine and coffee." In normally mild Washington, a growing number of residents are seeking air-conditioned shelter. Summer should be blissful: "School is out. Vacations are planned. We can go coatless, feel carefree." But it's becoming a "season to fear," with festivals, outdoor concerts, and sporting events canceled "because of unsafe heat, and wildfire smoke in the skies." Soon, people may spend July and August longing for January.

Moapa Valley, Nev.

Scorched to death: Two hikers died of suspected heat exhaustion last week at Nevada's Valley of Fire State Park, the



Valley of Fire: Hit 118 degrees

latest in a rash of heat-related deaths during a historically sweltering summer. Officials said

Jessica Rhodes, 34, and Diana Matienzo Rivera, 29, had been walking a 4.6-mile trail and ran out of water as temperatures hit 118 degrees. Days earlier at Death Valley National Park, Calif.—about 180 miles west—a 71-year-old hiker died of apparent heat-related causes as temperatures hovered around 120 degrees. At least five people are thought to have died from heat-related causes in national parks since June 1, a higher toll than is typically recorded in an entire year. In the Phoenix area, dozens of people have been hospitalized for burns after falling on sizzling sidewalks. "It only takes a few seconds for you to get a third-degree burn," emergency room doctor Frank LoVecchio said.

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Noted

■ During July, the hottest month on record, global temperatures for the first time blew past a key temperature threshold, rising between 2.7 and 2.9 degrees Fahrenheit (1.5 degrees Celsius) above preindustrial levels. "It's just shocking just how big an excursion this is from anything we've seen before," said climate scientist Zeke Hausfather. *The Washington Post*

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The bottom line

■ In 1980, losses from three U.S. natural disasters—a drought, a flood, and a hurricane—topped \$1 billion each (in 2023 dollars). Last year, there were 18 events across the country that caused \$1 billion or more in damage, including Hurricane Ian, which was responsible for \$114 billion in damage. *Bloomberg*

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■ Phoenix, which recently had a record-breaking 31 consecutive days of temperatures at or above 110 degrees Fahrenheit, is the country's fastest-growing metropolitan area. *The Atlantic*

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■ From June 22 to July 22 nearly 5,000 records for heat and rainfall were broken or tied in the U.S. More than 10,000 records were set globally. *Associated Press*

URUGUAY

Can farmers survive the hot new normal?

Juan Martín Posadas
El País

Even winter has brought South America no relief from global warming, said Juan Martín Posadas. For months, Uruguay has been suffering under a drought like a "biblical punishment." By May, the Paso Severino reservoir, which serves Montevideo's 2 million people, was parched and cracked, "looking like a scene from the Apocalypse," and the water utility was forced to draw from the brackish River Plate. The foul-tasting water in the taps ran brown, and officials warned pregnant women not to drink it. Now, in what should be our coldest month—August down here is like February in the U.S.—temperatures in northwestern Uruguay

hover above 80 degrees, thanks to an extreme heat dome baking South America. In neighboring Argentina they've surpassed 90, while one Chilean town high in the Andes topped 100. These extremes have hit farmers the hardest. Many "lost everything" this harvest season as more than \$1 billion worth of crops dried to dust. If this is the new normal, city dwellers will be fine: We're already building desalinization plants to make river water potable. But in the countryside, "every aspect of life will be disrupted." Farmers will need new livestock breeds, new feeds, new crop varieties. We're in for a "colossal upheaval."

18.

of forest raptor nests due to a lack of the location of nesting sites. All these adverse cumulative impacts of this proposed project could certainly be significant on forest bird populations. Without such an analysis, the agency has no basis for claiming this project will not significantly impact 67 species of western forest birds, including many that are neotropical migratory birds.

The previous 2 pages (17, 18) include recent news reports of extreme weather events in the Week magazine, as well as a report provided in Montana Outdoors on how climate change is impacting Montana. These effects are also likely somewhat similar in Idaho, including on the Targhee-Caribou National Forest. As noted in this March-April, 2023 report in Montana Outdoors, some areas of Montana can expect up to 5 more weeks of over 90 degree days each year by 2069; over the past 65 years, Montana's temperature has increase 0.42 degrees per decade while the national average is 0.26 degrees per decade; the greater rate of change is due to Montana's higher altitude, making it more sensitive to temperature fluctuations; by mid-century, computer models predict a 5-degree temperature increase in eastern and central Montana; by mid-century, eastern Montana is expected to have 39 more days above 90 degrees each year, and western Montana will see 10 to 15 additional days of 90+ degree plus temperatures.

It is clear that living conditions for western forest birds are becoming increasingly difficult due to climate change. The Forest Service needs to be doing all it can to address these changing conditions, to help mitigate them instead of exacerbating them through unnecessary logging and intentionally burning up habitat for forest birds, as is proposed in the Diamond Creek Forest Management Project. Activities that increase landscape heating, winds, landscape drying, and losses of carbon sequestration abilities need to end. Although these actions can be claimed to be insignificant with respect to total carbon increases that are driving climate change, significant impacts can be result from incremental separate actions. Since the effects of climate change are already significant for forest bird habitat, any increases in adverse conditions will also be significant.

As just a few examples of how climate change is impacting forest birds, both the great gray owl and boreal owl are noted to be sensitive to heat (Hayward 1997; Koshmrl 2013). The great gray owl is also a Species of Greatest Conservation Need in Idaho (Idaho Fish and Game Department 2016). Fragmenting forest habitat and thinning old growth forests will increase not only the temperature within logged forest, but also in clearcuts, and increase wind and weather effects across the broader area of this landscape. Also, building new forest roads (over a dozen miles) will increase wind speeds through these landscape by providing wind tunnels. Burning out large patches of forests

8. The project impacts on the wolverine were misrepresented.

The wolverine is proposed for listing under the ESA, and is a sensitive species on the Caribou-Targhee National Forest. The analysis of the Diamond Creek Forest Management Project on this species first falsely reported that roads will have no impact on this species, including all the new roads and conversion of ATV trails for logging roads. Nor references were cited for this claim. The claim is contradicted by, for example, Scrafford et al. (2018) who notes that roads elicit negative responses by wolverine. Region 1 of the Forest Service also recommended that roads be limited to less than one mile per section where wolverine are wanted (USDA 1992). The massive increase of roads within a small area of roaded landscape between IRAs will provided a concentrated area of high impact for this sensitive species, which will clearly degrade the landscape as wolverine habitat. It is noted they would avoid these roaded areas. The benefits to the public by degrading wolverine habitat were not identified.

The agency also failed to identify that big game winter ranges are critical winter/spring habitat for the wolverine. Region 1 of the Forest Service noted that management of big game winter ranges are important for this species. The proposed burning of over 1,000 acres of big game winter range within the Stump Creek IRA will unnecessarily degrade wolverine habitat, since the agency did not provide any data showing this will increase but not decrease big game numbers.

9. The timeline for the project is outside the scope of NEPA; proposed treatment units are not even mapped.

It is frequently noted that the Diamond Creek Forest Management Project will last 10 years for logging, plus up to 15 years for prescribed burning. Given the narrow window of opportunity for burning, the actual time period for this project is likely longer than 20 years. And these prescribed burning units are not mapped or defined as per year of treatment, or even how they will be completed. For example, it is not known if mastication is required for some areas. The vegetation that will be burned is not defined. The changes in vegetation that are hoped for are not defined. All the public is told is that about 1600 acres of the Stump Creek IRA will be burned to improve resilience and forest health. Also, the agency may discover that both lynx and wolverine are using this project area at some time in the future, including over 20 years. The current decision basically “assumes” that there will be no increase in occupancy by either species, which has no actual basis in science. Also, other species, such as the great gray owl, a Species of Greatest Conservation Need in Idaho, may be listed as threatened. Again, the agency is assuming that there will be no change in the status of this sensitive forest raptor in the next 20 years, without any actual basis for such. Also, it is likely that there will be a revision of the Caribou-Targhee Forest Plan, a revision that may correct the severe deficiencies in conservation strategies for forest wildlife, including neotropical migratory birds in general, birds identified as “at risk” on the forest, and birds associated with both old growth and snag forest habitat. Implementing a long-term project that extends well beyond a forest plan revision period is a violation of the NFMA, since it ensures that Forest Plan direction will not be followed. Finally, a 20-year time frame for a project decision means that all forest plan monitoring activity will never be applied to this specific project, which is a violation of the NFMA. Forest plan monitoring reports are generally produced from 1-5 year intervals. In essence, the Diamond Creek Forest Management Project will not be subject to any Forest Plan monitoring results, in violation of the NFMA. One other factor that we object to for the 20-year timeline for this project is that it is so large that the agency is not able to conduct valid wildlife surveys prior to a project decision. No raptor nests have been located yet, so they will potentially be destroyed during project implementation.

10. The Forest Vegetation Report clearly defines why the Caribou RFP has no valid conservation strategy for wildlife, in violation of the NEPA, the NFMA, and the MBTA.

The project vegetation report notes repeatedly that the proposed project is meant to achieve the Desired Conditions (DCs) for vegetation. This is the basis for commercial thinning and clearcutting, reduce the density of forest trees, to getting conifers out of aspen stands, to create a balance of forest age class structure and diversity, and to burn up forests to rejuvenate aspen and reduce catastrophic fire risk. The report notes that the lack of aspen regeneration is due to conifers, not livestock, although the monitoring information on this claim was never provided to the public. This claim is suspicious given that livestock browsing is a well documented cause of aspen decline. And on the Caribou Forest, stands of aspen without conifers (158,000 acres) are greater than stands with conifers (110,000 acres). The vegetation report does not identify which stands to be treated or burned have conifers and which do not. Anyway, it is a violation of the NEPA to provide false information to the public (conifers rather than livestock are destroying aspen regeneration) to justify proposed management actions. If livestock are the reason for a lack of aspen regeneration, logging out conifers will not increase aspen sprouts and improve aspen health, as is claimed by the agency.

11. The analysis of project impacts on big game was a violation of the NEPA.

The big game analysis did not measure the impact of total active motorized routes that are required for the project, which is termed habitat effectiveness (Christensen et al. 1993). All logging roads impact elk habitat (Christensen et al. 1993), including roads with 2-4 vehicle trips per 12 hours (USDA/MFWP 2013). Instead of evaluating HE, the agency just measured the Forest Plan requirements for permanent roads open to public use, which excludes all logging roads. As such, HE is never defined to the public for this project, in violation of the NEPA. The reduction in elk summer habitat for this project needs to be disclosed.