



Bighorn Audubon Society

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February 20, 2023

Attention: Thad Berrett
Powder River District Ranger
Bighorn National Forest

RE: Pole Creek Vegetation Management Project
Submitted via email to comments-bighorn@usda.gov

The Bighorn Audubon Society appreciates the opportunity to submit comments, inquiries and suggest analysis on the proposed Pole Creek Vegetation Management Project of approximately 92,000 acres mostly within the Clear Creek/Crazy Woman Creek watershed. We also appreciate and respect the Forest Service staff and management's emphasis to incorporate results of science in the decision-making process, and their ongoing dedication and difficult job to keep our Bighorn National Forest (BNF) healthy for all its uses.

We are concerned about consequences of the Pole Creek Project's proposal that includes clearcutting, large-scale timber harvesting (including some pre-commercial thinning) and construction of more roads and extending the network of roads. Especially concerning are:

- The potential short and long-term impacts on breeding, migrating and resident forest birds, and particularly forest-interior birds, as well as the overall forest health;
- Proposed addition of 25 – 28 miles of “temporary” roads concerns are further noted in these comments;
- Clearcutting: In addition to removing wildlife habitat, clearcutting raises water temperature in riparian areas, impacts negatively the watershed and aquatic life with soil run offs, causes deforestation if regeneration is not properly achieved, increases the spread of noxious weeds, decreases oxygen and increases carbon dioxide which results in negative climate changes, upsets the microclimate by increasing temperatures, dryness and wind, increases slides, spoils the scenery, impacts other forest canopies, and increases soil erosion and decreases soil quality. Clearcutting has been shown to negatively affect bird populations, and other wildlife, because of the complete removal of habitat. As a result of an accumulation of science demonstrating the negatives of clearcutting to wildlife and overall forest health most timber harvesting projects have moved away from clear cuts (Askins 2002¹). Have USFS Region 2 sensitive species that rely on forest interiors, such as the Boreal Owl (*Aegolius funereus*), been considered in the project

planning? Please provide a clear picture of areas targeted for large scale clearcutting in this proposal and disclose all potential impacts that have been considered.

- Impacts to recreation and tourism, further noted in these comments.

To address the requirements of the National Environmental Policy Act (NEPA) and the National Forest Management Act the Bighorn National Forest must address the above and following concerns and detail and disclose to the public a clear picture of the impacts, complete with supporting information, data, proposed mitigation actions and long-term consequences. Following are more details regarding our questions and areas of concern.

- **Birds:** How will bird's nesting, food sources, and habitat cover be altered and jeopardized within this proposed project? What monitoring and data collection has been done within the proposed 92,000 acres on nesting and migrating bird species, including sensitive, indicator, or emphasis species or species of concern, such as the Northern Goshawk, Long-eared Owl, Boreal Owl, Red-headed Woodpecker, Lewis's Woodpecker, Clark's Nutcracker, Evening Grosbeak, Red Crossbill, Cassin's Finch, Veery, Spotted and Green-tailed Towhees, Common Yellowthroat, and Olive-sided Flycatcher. The environmental impact study should answer these questions and provide all data known and collected. If there is no data, that should also be disclosed. The analysis should also disclose impacts to all bird species that inhabit and depend on this forest, including bird species that are dependent of forest interiors and respond negatively to edge (e.g., the edges of the proposed clear cuts and approximately 25-28 miles of additional "temporary" roads).
- **Roads:** The estimated 25 -28 miles of "temporary" roads may be constructed, and "these segments would be closed and revegetated with five years of sale closure" is of concern in its scope and potential for excessive disruption and risks. Will these "temporary" roads be reclaimed—reclamation is a type of restoration, that focusses on returning the land to a self-sustaining natural environment— after the timber operations are completed or will they be simply gated and add to the network of roads and fragmentation of forest habitat in the BF? What is the sale closure time frame? Forest roads are widely recognized for environmental impacts and risks. The 2015 "Bighorn National Forest Travel Analysis Report" states: *Environmental impacts or risks from motor vehicle use including impacts to water resources, soil erosion and risks from geologic hazards (e.g., landslides), concerns about fragmentation and wildlife security, impacts to vegetation (specifically introduction and spread of noxious weeds), and impacts to cultural resources.*

Environmental impacts

There are concerns about damage from motor vehicle use, including the following:

- a. Impacts to water resources:*
- b. Soil and geologic hazards: Much of the analysis area has soils that erode easily. These soils are extremely susceptible to compaction, rutting, gullyng, and development of mud holes. Some roads are susceptible to mass movement such as landslides.*
- c. Fragmentation and wildlife security: Roads may fragment wildlife habitat, create barriers to movement, reduce wildlife habitat capability to sustain populations, and increase areas of disturbance.*

- d. *Impacts to vegetation: Motor vehicle use may cause the spread of invasive species by dispersing seed sources.*
- e. *Impacts to cultural resources: Roads and use of these roads may impact cultural resources.*

Nearly 85 percent of wildland fires in the United States are caused by humans. Human-caused fires result from campfires left unattended, the burning of debris, equipment use and malfunctions, negligently discarded cigarettes, and intentional acts of arson.*

**Source: 2000-2017 data based on Wildland Fire Management Information (WFMI) and U.S. Forest Service Research Data Archive*

In addition to impacts on many bird species that are negatively impacted by edges and fragmentation (Askins 2002¹, Martin-Hugues St-Laurent 2009²), roads are corridors for spreading noxious flammable weeds, enhancing fire spread. Gated roads still provide access for ATVs, inadvertently or otherwise. Gates are not always a deterrent. Roads can have dramatic and lasting impacts on fish and aquatic habitat. Increased sedimentation in stream beds has been linked to decreased fry emergence, decreased juvenile densities, loss of winter carrying capacity, increased predation of fish, and reductions in macro-invertebrate populations that are a food source to many fish species (Gucinski et al. 2000³, Endicott 2008⁴). Roads close to streams reduce the number of trees available for large wood recruitment, and reduce stream-side shade (Meredith et al. 2014⁵). On a landscape scale, these effects add up to: changes in the frequency, timing and magnitude of disturbance to aquatic habitat and changes to aquatic habitat structures (e.g., pools, riffles, spawning gravels and in-channel debris), and conditions (food sources, refugia, and water temperature; Gucinski et al. 2000³).

The BNF must address and disclose the above impacts and what mitigation measures would be taken to reduce or eliminate any of these impacts.

- **Watersheds:** Are there instrumentations in place, including funding, for regular water quality sampling and testing, in watersheds within this plan? May we see the water quality data within the proposed project's range, including data on the *approx.. 40% of the Pole Creek watershed that was clearcut over 10-15 years in the early 1960's? *Reference *1983 Update New Directions in Management on the Bighorn, Shoshone & Bridger-Teton National Forests*. Will herbicides be applied after clearcutting or elsewhere as part of this project? Please detail the impacts to watersheds and specific mitigation measures that would be implemented to reduce or eliminate these impacts.
- **Livestock:** Per the plan, livestock grazing occurs throughout the project area. The purpose of this project "is to use various forest management practices to improve the health and productivity of forests, grasslands and watersheds, achieve a more balanced mix of forest habitat diversity, and reduce the risk of uncharacteristic wildfire effects...." These additional grazing areas may negatively impact birds. Any BNF analysis must disclose how much acreage would be added for livestock grazing and any additional impacts noted below.

**Damage to young trees and disturbances from livestock has been observed in the BNF. Where increased forage on timber harvest areas has resulted in intensive grazing and trampling disturbance, the forests should institute livestock management measures to minimize damage to riparian sites and regeneration.* Reference 1983 Update New Directions in Management on the Bighorn, Shoshone & Bridger-Teton National Forests.*

Per the Plan “*Timber harvesting operations on the Muddy Creek allotment will open new corridors for livestock to travel between pastures.*”... and new fencing to “*create a permanent holding pasture.*”

Are management measures in place to minimize regeneration damage?

What are the best management practices (BMPs) to be implemented for livestock management? What are the BMPs for livestock management within the riparian areas? Will any new livestock fencing be wildlife friendly?

- **Unspecified Action:** Under the plan’s Primary Proposed Actions it is stated: “It (broadcast burning) may also be used to treat other areas within the project area to meet specific management objectives.” Please provide specific details on the specific management objections you are focused upon and the impacts of this action and potential consequences.
- **Bark Beetle:** The plan’s one of five category purposes and need for action states: *Chronic long-term impacts from dwarf mistletoe, rust fungus diseases and overcrowding have left much of the lodgepole forest in a condition highly susceptible to bark beetle outbreaks.* Please disclose the above report in any analysis and provide data to support the above statement.
- **Federal funding** for this project is likely substantial, coming from the Inflation Reduction Act, Healthy Forest Restoration Act, and the Wildfire Emergency Act. We also hope funding will be directed to monitoring and analysis of wildlife, water quality, livestock and forest health, and education. We were very pleased to learn that BNF funds, with thanks to the BNF staff and management, will be directed this year to increase monitoring of BNF bird populations through the Bird Conservancy of the Rockies. Please disclose what additional funding and long-term monitoring will be implemented and funded to address the impacts of this proposal.
- **Old Growth:** Healthy forests, and the wildlife that depend upon old growth forest areas, and the public that expect a healthy forest, need a proper balance of forest vegetation stages from seedling to old growth which is critical for forest health. Executive Order 14072: *Strengthening the Nation’s Forests, Communities and Local Economies* reiterates the Administration’s policy regarding consultation with state, local, Tribal and territorial governments as well as the private sector, nonprofit organizations, unions, and the scientific community to, among other directives, pursue science-based, sustainable forest and land management and conserve America’s mature and old growth forests on federal lands, invest in forest health and restoration. Also, to define “old-growth and mature forests on federal lands, complete an inventory and make it publicly available and identify threats to mature and old-growth forests”. May we see the existing inventory of old growth trees within this proposed area? The environmental impact study should disclose an inventory of old growth trees and mitigation to ensure protection of old growth trees in the BNF area of proposed action.

- **Society's Needs:** Among the project's purpose and need for action it is stated, "Society needs a reliable, sustainable source of timber to produce the wood and paper products we use every day. Growth rates within many forest stands are stagnant or have slowed to unacceptably low levels which no longer support the development of timber resources for future generations." The project's "society's needs" at the potential expense of the BNF's health and economics may impact future generations of birds, other wildlife and humans. Please disclose and provide the data to support the above supposition and what data the BNF has to demonstrate that this forest can meet that need and whether is it even economically feasible. The area targeted in this proposal has already been heavily logged and no sawmills nearby exist. The environmental analysis should disclose and analyze the economics of this proposal.
- **Impacts to Recreation and Tourism:** The BNF is important for local, regional, and national recreation and tourism. In 2022, in partnership with the BNF, the Bighorn Audubon Society updated a valuable tool for bird watchers (originally created in 1985 with same partnership, and with WYG&F), "Bird Checklist of the Bighorn National Forest". Bird watching ecotourism brings economic value of over 41 billion in the U.S. We routinely receive requests from visitors and locals seeking locations to bird watch, in particular the Bighorn Forest. It is not just bird watching that these folks enjoy, but the scenic value is immeasurable. Please address and disclose the value of tourism and recreation of this area targeted for logging and the impacts it will have on recreation and tourism.

In closing, we are concerned about this proposal and the impacts it will have on the birds, particularly forest-interior birds, other wildlife, fisheries, water quality and the recreation and tourism industry. As this is a large-scale proposal that includes clearcutting and the construction of approximately 28 miles of new roads, we believe it warrants a full-scale Environmental Impact Statement to assess and disclose all potential impacts.

Thank you for this opportunity to comment on behalf of the Bighorn Audubon Society.

JoAnne Puckett
President, Bighorn Audubon Society

1. Askins, R., T. 2002. *Restoring North Americas Birds – Lessons from Landscape Ecology*. Yale University Press.
2. Martin-Hugues St-Laurent, C. Dussault, J. Ferron, and R. Gagnon. 2009. *Dissecting Habitat Loss and Fragmentation Effects Following Logging in Boreal Forests: Conservation Perspective from Landscape Simulations* 192: 2240-2249.
3. Gucinski, M., J. Furniss, R. Ziemer, and M.H. Brookes. 2001. *Forest Roads: A Synthesis of Scientific Information*. Gen. Tech. Rep. PNWGTR-509. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 103 p. Available at: <http://www.fs.fed.us/pnw/pubs/gtr509.pdf>

4. *Endicott, D. 2008. National Level Assessment of Water Quality Impairments Related to Forest Roads and Their Prevention by Best Management Practices. A Report Prepared by the Great Lakes Environmental Center for the Environmental Protection Agency, Office of Water, December 4, 2008. 259 pp*
5. *Meredith et al. 2014, North American journal of fisheries management 2014 v.34 no. 3*