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**Forest Service** 

**Madison Ranger District** 

Attn: Dale Olson

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Ennis, MT 59729

#### RE: SOUTH TOBACCO ROOTS VEGETATION MANAGEMENT PROJECT

Hello,

Native Ecosystems Council, the Alliance for the Wild Rockies, the Council on Wildlife and Fish, and Center for Biological Diversity would like to provide the following comments for the proposed South Tobacco Roots Vegetation Management Project.

#### 1. Public Involvement

The agency's efforts at public involvement appear to be the absolute minimal required legally. Both Native Ecosystems Council and the Alliance for the Wild Rockies have been extensively involved in public involvement opportunities on the Beaverhead-Deerlodge National Forest (BDNF), but neither group was notified of the release of the draft Environmental Assessment (EA) for the proposed South Tobacco Roots Project. In addition, scoping was combined with a draft EA, which

means the public has had the time available for field reviews of the project area significantly reduced. The agency's strategy to address ongoing strong public concerns about agency management practices is to limit public involvement, instead of addressing public concerns.

#### 2. Mapping Concerns

The maps provided in the draft EA are essentially illegible. It is extremely difficult, if not impossible, to actually identify most treatment units, unless the units, such as the proposed burning units, are very large. Determining the location and status of roads and trails was also essentially impossible. Also, the Wildlife Report for the project did not include the maps. So any information provided in these maps regarding wildlife was not available to the public.

## 3. Map of the Wildland Urban Interface (WUI)

The WUI map for this project claimed that the boundary was based on interface and intermix communities at-risk, and along roads. Roads do not qualify as communities at-risk. And communities at-risk are defined by population densities. The agency did not provide the supporting documentation, as per densities per square mile, for the interface and intermix communities. It appears that the WUI definition is invalid as per the Healthy Forest Restoration Act (HFRA). AS just open example of an invalid definition of the WUI, the exemptions allowed for the Northern Rockies Lynx Management Direction (hereafter "Lynx Amendment" have to occur in the WUI as per the HFRA. So the agency is claiming exemptions for altering lynx habitat within an invalid WUI, in violation of the Lynx Amendment.

#### 4. Violation of the Roadless Area Conservation Rule

The agency claims that burning within the Middle Mountain Tobacco Roots IRA is consistent with the 2001 Roadless Area Conservation Rule. There will be 600 acres burning in this IRA, although the table on acres per units actually shows unit 3015 to be 774 acres, not 600 acres. The draft EA repeatedly claims that this burning will improve habitat for all wildlife, but the real only improvements to the IRA will be finally implementing the 2011 Madison District Transportation Plan by closing/obliterating some roads. The actual management of roads in the IRA is generally unclear. For example, use of nonsystem roads for access for slashing/burning activities is unclear. And the roads to be used to the burning are not clearly the roads that will finally be closed/obliterated. The road removals are claimed to be what will benefit wildlife (which is correct), not the burning. The agency has not provided any actual evidence that burning 600-774 acres in the IRA improves wildlife habitat, will restore ecosystems, or will restore the Natural Range of Variation (which is essentially a meaningless term). Burning and removing vegetation is not generally noted to benefit wildlife, since they are using the vegetation that will be removed. As well, replacing important vegetation with cheatgrass, something that is highly likely in proposed burning units, is not restoring ecosystems in the IRA. How does increasing a non-native annual grass, including one that is highly detrimental to wildlife, qualify as restoration of either ecosystems or NRV? Also, the agency acknowledges that large numbers of whitebark pine seedlings and saplings will be destroyed in burning units. It is unclear why eliminating decades and/or hundreds of years of whitebark pine recruitment is restoration of these local populations. The draft EA also notes that grizzly bears and wolverines will be "displaced" by burning activities. The benefits that these threatened species will eventually receive, once disturbances are over, are not actually defined. How exactly will habitat be better after than before burning, including the destruction of whitebark pine recruitment for the grizzly bear? Finally, the agency notes that climate change alone has resulted in increasing summer temperatures. The additional increase of spring/summer/fall temperatures that will result from burning vegetation was not identified. The agency also did not define why increased spring/summer/fall temperatures that will result from burning will benefit any wildlife species, including declining populations of shrubland and forest birds, or the wolverine, a species that is known to be vulnerable to heat stress.

## 5. Failure to evaluate project impacts on a Management Indicator Species

There is no analysis of project impacts on MIS elk. Security areas are not identified before or during the project. Recommendations for security as defined in the current best science as areas of contiguous forest cover at least .5 miles from an active motorized route, are for a minimum of 30% of the landscape. The current and planned levels of security for the Tobacco Root Project Area need to be defined. Also, the impact of existing security on elk population numbers needs to be defined. The Wildlife Report at 10 notes that elk counts from the winter 2024 recorded all time record high number of elk in the Tobacco Roots Elk Management Unit, specifically in the project area. One of the best indicators of insufficient security are high elk population numbers, due to limited harvest when they find security on adjacent private lands. Current conditions for security appear to be insufficient, and most certainly will be exacerbated by more logging and burning. The Wildlife Report at 9 states that hiding cover is 17,383-19,231 acres within the grizzly bear units of 119,247 acre. This would be 16% hiding cover, but this includes stands with only a 10% canopy cover, including aspen stands. Logging will remove 1,218 acres of cover, reducing it to only 15% of these two grizzly bear units. This would include conditions in the South Tobacco Root Project Area.

Finally, significant impacts are triggered when active motorized route densities, that include motorized trails or any route that has from 2-4 vehicle trips per 12 hours, exceed 2 miles per section. For the roaded portions of the project area (not including the IRA acres of 8,210) leaves the roaded portion of the project area of 23,144 acres. It is almost impossible to determine what the existing or project levels of habitat effectiveness will be, but our "guess" is it will go up to about 4 miles per section in roaded areas, from what appears to be about 3.6 miles per section currently. Both current and planned active motorized route densities will exceed the maximum recommended levels for elk, which is 2 miles per section. The current as well as planned HE for MIS elk clearly are significant adverse impacts. Although the agency claims that many nonsystem roads will be closed, to improve wildlife habitat, these roads will not be closed until after the project is

done. Nor is there any actual guarantee any roads will be closed, as per the 2011 travel plan, as this plan does not seem to be an agency priority due to an ongoing lack of implementation.

### 6. Failure to evaluate burning impacts on crucial big game winter range

The Wildlife Report does not address MIS elk, but the draft EA notes that all burning units (numbered 3000) west of the Granite Creek Road are crucial winter range/calving habitat for elk. Actual acres of crucial elk winter range are not identified, but could be roughly approximated by totaling acres in burning units 3010, 3015, 3050, 3030, 3045, 3060, 3057k, 3065, 3063, 3085, 3080, 3090, 3100 and 3070. These acres come to almost 8,000 acres of crucial elk winter range that will be burned. How destruction of sagebrush and conifer trees on crucial winter range will impact the MIS elk remains undefined to the public. It is not clear why sagebrush and conifer trees are not important factors of elk winter range. As well, mule deer winter range will also be burned and severely degraded. As well, elk calving and mule deer fawning habitat will be severely degraded, as hiding cover needed to protect calves and fawns from predators will be removed. It is clear that severe impacts are planned for MIS elk on this crucial winter range, without any actual disclosure of impacts to the public, or completion of an Environmental Impact Statement (EIS).

# 7. Conversion of whitebark pine stands to other conifer forest types

All of the proposed treatments in whitebark pine will eliminate most, if not all, seedlings and saplings, as well as younger, smaller mature trees, as per the agency's limited assessment of the threatened whitebark pine. Removal of recruitment of whitebark pine means that other conifer species will regenerate in these treated areas, promoting species other than whitebark pine. In effect, logging and burning of conifer forests containing whitebark pine promotes their long-term removal from these stands. Research has reported that regeneration of

whitebark pine in treated, thinned and/or burned areas has resulted in essentially no whitebark pine regeneration for up to 40 or more years. The replacement of mixed conifer stands containing whitebark pine with other conifer species that will regenerate quicker in treated areas is not identified as a project impact to this threatened species, in violation of the NEPA. Also, with the ongoing impacts of climate change, there is a potential that burning of higher elevation conifer forests that contain whitebark pine may never regenerate to any species, let alone to whitebark pine. These burned sites may be converted to grasslands. The draft EA notes that 13.5% of this landscape has whitebark pine, which means there are at least 4,233 acres of whitebark pine present. The claims that only 154 acres of whitebark pine will be impacted (logging of 94 acres, precommercial thinning of 30 acres, and burning of 30 acres) seems false. The agency seems to be misrepresenting project impacts on whitebark pine, possibly because only mostly pure stands of whitebark pine are being identified as having impacts. Forest stands important to grizzly bears are mixed conifer stands with whitebark pine, not pure stands, which lack red squirrels. So only protecting pure stands of whitebark pine is not a conservation strategy for this tree, as it occurs over a much broader portion of the landscape.

## 8. Project and cumulative impacts on moose

There is no analysis of how past and planned logging of older forest stands will affect moose via loss of crucial winter range. Dense, complex forest stands have been identified as crucial winter range for moose once winter snow conditions settle in, as these stands not only moderate snow depths due to dense canopies, but they provide a key winter forage for moose, which is subalpine fir sapling as per studies of moose in Yellowstone National Park and adjacent areas. Also, moose on the Targhee portion of forest lands directly to the south in Idaho consume lodgepole pine as winter browse as well. The level of population reduction this project will trigger on moose due to continued loss of crucial winter range needs to be identified to the public, as well as why reductions of local moose populations is needed to protect humans from fire.

### 9. Logging of big game winter range in the winter

Winter logging is planned for this project. There is no analysis as to winter logging impacts on moose. There will potentially be multiple impacts on this species, which is declining in Montana, due to destruction of crucial winter range along with disturbances of moose in the critical winter periods. The agency claims that this project will benefit moose are clearly false.

## 10. False claims regarding sagebrush burning on sage grouse

The agency claims that burning sagebrush stands in a "mosaic" pattern, killing up to 50% of the sagebrush while other sagebrush survives in patches, improves habitat for the sage grouse. There is no science that identifies that too much sagebrush inhibits sage grouse brood-rearing habitat, and so reducing it with burning will improve sage grouse productivity. The claims that burning sagebrush in a mosaic is a long-standing claim by the Forest Service ever since it became clear that the agency's long-standing sagebrush burning program was harming sage grouse. Claiming that burning sagebrush in a mosaic, without any actual monitoring or scientific evidence, is the way the agency has been able to justify continued sagebrush burning programs, such as the South Tobacco Root burning program. The agency will burn 1,328 acres of pure sagebrush in what is claimed to be a mosaic pattern. What a mosaic burn generally does is burn out the more dense areas of sagebrush while leaving the scraggly patches. Since the Forest Plan has been in effect since 2009, the agency has yet to produce any evidence that burning sagebrush in a mosaic pattern improves sage grouse habitat. Given that sage grouse continue to decline in southwestern Montana, this mosaic burning that has been ongoing on the BDNF is not working. We note that the NEPA documents for the South Tobacco Roots project do not address the ongoing population trends (declines) for sage grouse, or discuss how management by the BDNF as per burning programs in sagebrush may be affecting these trends. Continuing programs without any analysis of effects if an National Forest Management Act (NFMA) violation.

11. The agency failed to evaluate project impacts on sage grouse as indicators of sage grouse habitat management directed by the 2015 Forest Plan amendment for sage grouse.

The BDNF has forest plan direction that requires specific management of sagebrush habitat in occupied sage grouse habitat, as developed in 2015 to conserve sage grouse. Recommendations for management of priority sage grouse habitat includes maintaining at least 80% of nesting habitat with 15-25% sagebrush cover, and maintain at least 40% of brood-rearing habitat that has at least 10-25% sagebrush cover, and maintaining at least 80% of wintering habitat that is at least 10 inches above the snow with a canopy cover of at least 10%. Other objectives include identifying and strategically protecting larger intact sagebrush areas and areas of lower fragmentation to maintain sage grouse population persistence; project proposals and their effects will be evaluated based on the habitat and values affected. These recommendations would also indicate project impacts to sagebrush burning in sage grouse general habitat, however, and should be used in any assessment of impacts to this species as a conservation effort. As was noted by the 2022 North American State of the Birds Report, sage grouse is identified as a "tipping point species," which means they have lost over 50% of their populations in the last 50 years, and are projected to lose another 50% of their populations in the next 50 years. It would seem prudent to optimize management of sage grouse in all occupied sage grouse habitat, even if it has been labeled as general, not priority habitat.

12. The agency provides a false assessment of burning sagebrush habitat

There are a number of conifer removal projects in sage grouse habitat noted in the South Tobacco Roots project analysis and these references were used to claim that burning sagebrush is recommended by the current best science. This is a false claim, that all conifer removal projects that have reported benefits to sage grouse did not burn the sagebrush. IN fact, these reports note that special efforts

were use to prevent any burning of sagebrush. Instead, trees were mechanically removed, while sagebrush was maintained. As such, the agency is violating the NEPA by claiming that conifer removal programs that burned sagebrush have shown benefits to sage grouse. This is patently false. The agency intends to burn the sagebrush along with the trees, so that vast acres of sagebrush habitat will be removed and fragmented.

13. The agency failed to document sage grouse do not nest in the project area.

There were no results provided for any sage grouse nesting surveys that were conducted in the South Tobacco Root Project Area. Yet the agency "assumes" there no sage grouse nest in this landscape. The distance from occupied leks was used as a basis for this claim, of about 6 miles from leks. However, sage grouse are known to travel up to 20 miles from leks for nesting. And it has been noted in southwestern Montana that sage grouse appear to travel long distances from leks in order to find suitable nesting cover. The 1,328 acres of sage grouse habitat that will be burned could be providing nesting habitat for sage grouse, which means nesting habitat will be reduced as a result.

14. Claims that burning sagebrush is being done to remove encroaching trees got sage grouse management is false.

There appear to be 10,537 acres of sagebrush burning planned. Table 1 of the draft EA notes of the 12,420 acres planned for burning, that 1,883 would be in harvest units. This leaves 10,537 acres of burning outside of harvest units. The Vegetation Report for this project notes that 20% of the project area has experienced conifer encroachment, while 30% of the planned treatment units have conifer encroachment. 30% of the burning units would be 3,162 acres. That means that the remaining 70% of the burning units, or 7,376 acres, do not have conifers. This indicates that 7,376 acres of sagebrush will be burned even though no conifers are present. It is also unclear why the agency claims there are only

1,328 acres of sage grouse habitat in this project area. At least 7,376 acres of planned sagebrush burning have no conifers, while another 3,162 acres of sagebrush do have conifers. There appear to be many more acres of sage grouse habitat in the project area than claimed by the agency. Also, conifers are reported to be detrimental to sage grouse when within 1.86 miles of a lek. The agency claims there are no sage grouse leks in the project area, which means that all proposed burning of sagebrush/conifers acres (3,162 acres) are not within the 1.86 miles of a lek.

15. The agency failed to define why conifers in sagebrush habitat is detrimental to wildlife.

The justification for burning sagebrush to kill trees has been recently identified as the need to burn sagebrush. The rationale goes that trees in sagebrush provide perches for avian predators, which prey on sage grouse eggs and chicks. This claim has never actually be verified, which is likely because it is illogical. If perches for raptors is a problem, the trillions of fence posts across Forest Service grazing lands would surely be a problem for sage grouse, but this problem has never been mentioned. Also, most trees provide unsuitable perches for "sit and wait predators" because raptors require open perches for both viewing the landscape and avoiding feather damage. On the other hand, the most notorious and documented predator of sage grouse eggs and chicks is the raven. This predator mostly hunts via aerial searching, and is able to fly low and slow over large landscapes in search of prey. There is no ecological justification for removing trees to save sage grouse from aerial predators, such as is claimed for the South Tobacco Roots Project. The agency is providing a false rationale to the public for burning vast acres of highly-valuable sagebrush habitats just because this is a long-standing agency practice to promote forage for livestock. Concealing the actual rationale for burning sagebrush is a NEPA violation. It is noted that the South Tobacco Roots project area is grazed by livestock. The 2009 Revised Forest Plan clearly demonstrates sagebrush burning promotes livestock grazing. Claiming that burning sagebrush is being done to save sage grouse rather than promote livestock grazing is a significant misrepresentation to the public.

16. The proposed burning of sagebrush, including stands with conifers, will have devasting impacts on songbirds, an impact that was never disclosed by the agency.

There are at least 8 Montana Species of Concern, including both songbirds and raptors, that are dependent upon both sagebrush and/or woodland/sagebrush mixes. These include the Brewer's Sparrow, Sage Thrasher, Sage Sparrow, Greentailed Towhee, Pinyon Jay, Loggerhead Shrike, Golden Eagle, and Ferruginous Hawk. Although the Project Wildlife Report claims no Pinyon Jays occur in the project area, this could be a false claim for a species that has just recently been petitioned for listing under the Endangered Species Act (ESA). Pinyon Jays frequently feed on spilled grain at the Harrison elevator, which is relatively close to the South Tobacco Roots project area. Burning sagebrush and conifers removes nesting and foraging habitat for songbirds. This fragmentation increases cowbird parasitism as well. Burning out trees removes nesting sites for other species, such as the Ferruginous Hawk, and prey species for both the Ferruginous Hawk and the Golden Eagle, such as cottontails and jackrabbits. The direct effects of burning will also kill an untold number of both songbirds and raptors. Burning will occur in the spring when birds are nesting. In addition to direct killing of songbirds, which could be nesting in sagebrush stands are very high densities (e.g., White-crowned Sparrow, Brewer's Sparrow), the smoke produced from fires will be highly toxic to both songbirds and raptors. In addition to direct killing of birds due to smoke toxicity, fitness of birds will also be reduced due to damaging impacts of smoke. Overall, the impacts on birds from the proposed burning program will be monumental, an impact that was never disclosed by the agency, in violation of the NEPA as well as the NFMA. It will take up to 30 years for burned sagebrush stands to return to their previous condition, which may not even actually occur, because burned stands will now be populated with cheatgrass. We are not aware of any literature that identifies cheatgrass as beneficial species for birds and raptors. Overall, the impact of the proposed sagebrush burning program on birds will clearly be monumental. The public needs to be provided with this information, along with the agency rationale for such a program that targets vast number of birds for killing and habitat removal.

17. The agency provided no analysis regarding the ongoing program to cut out conifers from riparian areas.

The draft EA at 14 notes that conifers will be cut from riparian areas for a mile along Harris Creek. There is no mention of analysis of this program, including in the project wildlife report. It is unclear why conifers in riparian areas are detrimental to wildlife and removing them will improve wildlife habitat. The analysis as per current best science, as well as past monitoring results from this ongoing program, need to be included in the EA so that the public understands why conifer trees in riparian areas are detrimental to wildlife and need to be removed.

18. There is no analysis of project impacts on old growth forests or associated species.

The BDNF requires at least 10% old growth, which is far below historical levels of 20-50% or below recommended levels for wildlife, such as 20-25%. There was no information provided in the South Tobacco Roots NEPA documents what the current level of old growth is. There is clearly high quality old growth in the Meadow Creek areas. The agency needs to provide a valid inventory of old growth in the project area, including how many stands will be logged.

19. The agency did not evaluate project impacts on wildlife associated with forested snag habitat.

The only analysis of wildlife dependent upon snags in the South Tobacco Roots NEPA documents was that FIA data shows there are "some snags" across this project area. FIA data refers to broad landscapes, and is not suitable for project level measurements. In addition, even if the agency identified the average number of snags across the entire project area, which would meet the Forest Plan

requirements, this is not a valid proxy for the 42 birds and 10 mammal species that use forested snag habitat. The agency is required by the NEPA to actually evaluate project impacts on these species of wildlife, instead of deferring to Forest Plan direction. Almost all these species require large tracts of older forests that are occasionally infested with insects and disease. As was noted in the project vegetation report, the one objective of the project is to rid these forests of insects and disease. This direct conflict between wildlife management and timber management (reduce mortality from anything other than cutting down a tree) was never addressed in the BDNF Forest Plan. As such, ongoing impacts on these 42 bird species and 10 mammal species, impacts that are clearly very severe, from timber management have never been evaluated or management impacts disclosed to the public. The public has never been told that logging is basically incompatible with the 42 bird and 10 mammal species that depend upon diseased older unlogged forests. Continued implementation of the BDNF Forest Plan will exacerbate past impacts on these species of wildlife, and is a violation of both the NEPA and the NFMA.

20. The agency's continued implementation of the Forest Plan direction that allows logging, and hence destruction of old growth, is a violation of the NEPA and the NFMA.

As is noted in the South Tobacco Roots project NEPA documents, the BDNF Forest Plan allows logging of old growth forests down to minimum screening criteria, which includes only about a dozen or so large older trees. However, the Forest Plan has never evaluated how this logging of old growth impacts associated species, which include roughly 31 bird and mammal species. Without such an analysis, claims that wildlife habitat values are maintained with logging and fuels treatments, including understory removal, are both a NEPA and NFMA violation. The long-term impacts of continued old growth logging on the BDNF are unknown, but likely severe. A recent analysis of old growth forests on Forest Service lands indicates these are about 9%, well below levels needed for wildlife. Also, this is well below historical levels, even though the agency claims management goals are to restore the historical vegetation levels.

21.Implementation of the BDNF Forest Plan cannot legally continue until Forest Plan Amendments are completed for old growth, snag habitat, and whitebark pine management.

As we have previously noted, the BDNF has no valid management strategy for a large number of wildlife species that depend upon forested snag and undisturbed old growth forests. This direction has been implemented since 2009, with what are likely severe impacts on wildlife. Failure of management actions across the western United States is certainly a contributing factor to the ongoing decline of a majority of western forest birds. At a minimum, the Forest Service needs to acknowledge these severe failures to manage wildlife to the public in a Forest Plan Amendments, where actual impacts of timber harvest and fuels projects are identified. The agency also lacks any valid conservation strategy for whitebark pine, which has recently been listed as a threatened species. The management actions, such as those proposed for the South Tobacco Root project, are not based in any actual science. Nor does it seems possible that removing decades or possible a hundred or more years of whitebark pine recruitment through logging and burning will restore or maintain these populations. It is clear that valid conservation strategies for this threatened species that include something other than irresponsible burning need to be devised and explained to the public in a Forest Plan amendment.

22. The agency did not define how many acres of logging will occur on unsuitable timber lands, where these units are located, or what resources other than timber management are benefited from this logging.

The agency NEPA documents for the South Tobacco Roots project claims that logging of unsuitable timber in the project will benefit other resources, while at the same time acknowledging that only timber management will be benefited. Timber management will benefit because logging will supposedly reduce the change for these and other stands on unsuitable lands to burn, hence the commercial values will be lost. No wildlife benefits were identified. It is clear that wildlife habitat will be degraded, which is not a resource benefit. Logging these unsuitable acres is thus a violation of the BDNF Forest Plan.

### 23. There was no analysis of cumulative effects that complies with the NEPA.

There is only a general summary of cumulative effects, which states only that some different projects have occurred in this landscape. The acres impacted by past and ongoing projects is never identified. Even if these acres of past effects were identified, this would not satisfy NEPA requirements, as the effects of these past projects also needs to be evaluated. For example, the agency needs to define how many acres of moose critical winter habitat have already been logged. How many acres of old growth have been logged. How many acres of sagebrush have been burned? What are the monitoring results of these past projects that demonstrate additional impacts will not be significant? How is the current project being designed based on past activities? In particular, the failure of the agency to evaluate cumulative effects is especially detrimental to wildlife management. It is important for the agency to provide high quality, valid wildlife surveys for at least forest raptors in the project area. This shows the public what the impacts of past management activities have been on wildlife, such as the Flammulated Owl, Great Gray Owl, and Northern Goshawk. If the public is not shown how past activities have impacted forest raptors, the agency has not valid basis for claiming that a new project will not have significant impacts in this managed landscape for these species. As one example, the agency notes that there are a number of Great Gray Owls believed to be nesting in the project area. Surely many suitable nesting stands have already been logged, so that remaining nest stands will be extremely important for these birds. Yet none of this information is ever provided. In summary, implementation of valid, effective wildlife surveys in a project area is essential to meet the requirements of the NEPA to address cumulative effects. The South Tobacco Roots project is a clear violation of the NEPA as there have been no valid forest raptor surveys completed, surveys that are essential for the agency to define cumulative effects to wildlife. This project cannot meet the requirements of the NEPA until thorough and valid forest raptor surveys have been done and results presented to the public. This will also allow the agency to meet the requirements of the NEPA by demonstrating specifically how the proposed project has been designed based on locations of forest raptors. At present, the agency has designed a large project with no wildlife inventories.

24. The agency failed to provide any analysis as to how increasing the spring/summer temperatures in logged/burned areas will impact forest wildlife, including within large clearcuts.

It has been estimated by some sources that clearcuts can have a summer temperature increase of almost 20 degrees higher than adjacent forests. Thinning of forest stands will have similar impacts to wildlife: reduced shade, increased wind speeds, and increased evapotranspiration, early drying out of vegetation, including for big game, all which degrade wildlife habitat. Forest owls are known to be highly sensitive to heat stress. The threatened wolverine is also known to be sensitive to heat stress. Yet the agency claims that all the proposed logging and burning will benefit wildlife, if not in the short term at least in the long term. The impacts of exacerbating climate change on wildlife, however, was never addressed except for a claim that some bird species will thrive with increased heat! The agency is required by the NEPA to provide a valid assessment of how wildlife will be adversely impacted by the proposed increase in spring/summer temperatures from the South Tobacco Roots project. This requires an estimate of what the reduced carrying capacity for wildlife will be as a result of increased temperatures across the project area, along with a justification as to why a reduction in wildlife carrying capacity is needed in order to save humans from fire. The expected reductions in human mortality from the proposed project needs to be identified to the public, as this is the net public benefit the project is supposed to create.

25. The severe impact of the project on invasive grass increases was never evaluated.

The agency claims that some increases in cheatgrass, an invasive annual, are not a problem because they will be eliminated through treatments. It is not clear how many acres are actually infested with cheatgrass. But these acres likely include every past prescribed burn. We have photographed prescribed burns in North Willow Creek and in the Meadow Creek drainage that are filled with cheatgrass. If

cheatgrass is still present in the South Tobacco Root Project Area, it is not clear why they have not been eliminated, since the agency claims this is a standard practice. In fact, we contend that cheatgrass is nearly impossible to eliminate, and so agency activities that increase cheatgrass, such as the massive burning program proposed for the South Tobacco Root Project, are an unacknowledged management action to increase cheatgrass. The agency needs to provide much more information on management of cheatgrass, including current acres and locations of infestations, effectiveness of past treatments, and expected acreage increases that will result from the proposed project. This analysis also needs to include a discussion on the net public benefits from increased cheatgrass on public lands versus the number of human lives that will be saved from fire.

26. There was no analysis of large openings, nor has there been such an analysis in the BDNF Forest Plan.

The South Tobacco Root project includes 7 openings over 40 acres. There was no analysis as to how these opening affect wildlife, including as was noted previously, increases in temperature up to 18 degrees. Also, the larger the opening, the greater the drying effect on forage for big game, even though the agency claims that the project will improve forage for big game. There was no analysis of the long-term effects on wildlife, which although the agency claims will be benefits, will remove forested snag habitat for roughly 100 years. This is the time it is noted for a forest stand to reach maturity for harvest. It was also noted that lodgepole pine stands become vulnerable to pine beetles at roughly 80 years. This vulnerability is a key factor in creating wildlife snags for a host of wildlife species. The BDNF Forest Plan has never evaluated the impact of any clearcut size on wildlife, let alone those over 40 acres. The Forest Plan states that clearcutting must be determined to be the optimum method for resources, including wildlife. Clearly, the removal of snag as well as old growth habitat for over 100 years is not a wildlife benefit. Also, clearcuts of any size directly remove elk security, and fragment landscape security as well. Elk security in the project area is clearly lacking, although no actual analysis was provided, given the high elk population numbers. Clearcuts also remove moose critical winter habitat, not to be replaced

for over 100 years. Moose winter range is essential winter/spring foraging habitat for the threatened wolverine. The location of clearcuts in moose winter range was not defined for the South Tobacco Roots Project. Also, the justification for any clearcuts in this project is to reduce mistletoe infestations. The larger the clearcut, the more regeneration will be protected from the spread of mistletoe from adjacent forests. Timber management is the proposed rationale for clearcutting, which is not a wildlife benefit. These clearcuts violate the Forest Plan.

27. The project will have severe adverse impacts on the wolverine, impacts that were not identified in the NEPA analysis in violation of the NEPA.

All of the proposed logging, including clearcutting, and burning will result in increased spring/summer temperatures in this landscape above which would occur normally, including those that are already occurring with climate change. These temperature increases will be detrimental to the wolverine, not only by increasing the potential for heat stress, but by reducing spring snow conditions due to increased spring temperatures as well as a loss of shade. As was noted in the Wildlife Report, snow is an important spring habitat benefit for the wolverine. What was never even identified was the impact of logging, including clearcutting, on moose winter habitat. Moose can be an important carrion source for wolverine in the winter and spring. Also not noted is the massive burning of big game winter range. Wolverine are noted to use big game winter ranges for foraging in the winter, as well as in the spring in calving areas. This happens with the winter ranges in the South Tobacco Root landscape, as a wolverine was killed on the highway just to the east of the project area, by McAllister, a number of years ago. Also not addressed is the severe impact that the high open road density will have on wolverine, a species that is sensitive to roading activities. These cumulative severe project impacts on the wolverine were not identified, in violation of the NEPA. Had wolverine habitat requirements actually been considered for this project, the project would have clearly been designed much differently, including elimination of the massive burning proposals to crucial big game winter range.

28. The BDNF Forest Plan needs to be amended to address management of the threatened wolverine.

The South Tobacco Roots project is a good example of the failure of the BDNF to manage for the threatened wolverine. The analysis used for wolverine is the standard process on this and other forests in Region 1, that wolverine use almost none of the vast landscape they occupy, with much being defined as "dispersal habitat." Apparently when wolverine move through their home ranges, they do not actually search for prey most of the time. Due to the standard agency definition of wolverine habitat, big game winter range is not identified as important. Road densities outside of high elevation rocky peaks are not identified as a problem for wolverine. This flaw of the BDNF wolverine management strategy allows the agency to only manage unroaded habitat for this threaten ed species. This is demonstrated for the South Tobacco Root Project Area. The big game winter range is not set aside for wolverine management. In effect, the BDNF has established a flawed wolverine management strategy that protects management of forests and fuels management by limiting wolverine management to unroaded habitats. The BDNF Forest Plan needs to be amended to at last designate valid management areas for the wolverine, areas that include all important habitats.

29. The BDNF has violated the NEPA by failing to include public involvement in the remapping of lynx habitat across the forest.

The South Tobacco Roots project area is one of those on the BDNF where lynx habitat was remapped, with large deletions of habitat as a result. The 2 Lynx Analysis Units that cover this project area are largely mapped as non-lynx habitat. TR-02 is only 32.5% lynx habitat, and TR-03 is 33.3% lynx habitat. Yet the Tobacco Roots Mountains was recently evaluated in a research project for mapping lynx habitat by Olson et al. (2022) (Improved prediction of Canada lynx distribution through regional model transferability and data efficiency, Ecology and Evolution 11: 1667-1690). Their map shows the entire Tobacco Root Mountains as suitable lynx habitat. It is clear that the remapping effort by the BDNF resulted in large

deletions of lynx habitat that are not consistent with the current best science. One factor that may be important in these mountains is the availability of alternate prey for lynx. The sagebrush habitats in the Centennial Mountains south of the Tobacco Root Mountains was known to produce high numbers of trapped lynx during a jackrabbit population high. As a result of this mapping done without public involvement the BDNF has determined that large portions of lynx habitat are actually "unsuitable." For LAU T02, 62% of the lynx habitat is identified as unsuitable, while for LAU T03, 58% of the lynx habitat is identifie4d as unsuitable. Thus there would supposedly be no project impacts on these unsuitable acres. It is clear that the remapping process of lynx habitat on the BDNF does not provide a valid representation of lynx habitat, which means that impacts of projects on this habitat will also be invalid, as is the case for the South Tobacco Root Project.

The Lynx Amendment is also flawed in that it does not require LAUs to be consistent with the average home range size of female lynx, which Is under 20,000 acres. The LAUs for the South Tobacco Root Project are over double this size, which means that local impacts of logging and burning are washed out by the large area of landscape evaluated.

The exceptions allowed by the Lynx Amendment require treatments to be locate within a WUI as per the HFRA. The South Tobacco Root Project uses exceptions for project impacts on lynx that are not actually located in a WUI, which is a Forest Plan violation.

Until the BDNF completes a lynx remapping project that includes the required public involvement, the agency cannot impact mapped lynx habitat, which according to the current best science, includes the entire Tobacco Root Mountains.

30. The agency failed to define to the public that the South Tobacco Roots project area is being managed as "sink habitat" for the threatened grizzly bear, and provided a false reference regarding grizzly bear security areas.

The South Tobacco Root project occurs across 2 Grizzly Bear Analysis Units, Mill Creek and Meadow Creek. None of the current best science is being applied to the South Tobacco Root project area for the threatened grizzly bear. This science demonstrates that source habitat for the grizzly bear requires 60% security, including areas at least 2500 acres in size, and only 1 mile of active motorized route per section. The BDNF defines grizzly bear security as only 10 acres if active motorized routes are at least 500 meters away. The agency violated the NEPA in their grizzly bear analysis by citing the 10-acre size for security areas as IGBC (1998) which is clearly false. There is no actual scientific reference for a 10-acre security area for grizzly bears. As well, there was no map of existing grizzly bear security areas, or acres defined. The agency also failed to identify that this project area is being managed as sink habitat for grizzly bears. Once this active motorized route density begins to fall below one mile per section, a grizzly bear population begins to decline. The current and planned active motorized route density in this project area was never defined for the grizzly bear, in violation of the NEPA. The South Tobacco Root landscape clearly has no effective management for grizzly bears, including loss of security habitat. Although security areas are not mapped or measured, it appears that 1000 acres will be impacted by the project. The amount this will reduce existing security is unknown, so the level of impact is also unknown. So both the existing and planned habitat conditions in the South Tobacco Root landscape is an adverse impact on grizzly bears, requiring consultation with the U.S. Fish and Wildlife Service.

Regards

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