October 6, 2022

Via Email

To: Objection Reviewing Officer

USDA Forest Service Northern Region
26 Fort Missoula Road

Missoula, MT 59804

Dear Objection Reviewing Officer:

Thank you for considering our Objection against the Draft

Decision Notice, FONSI, and Environmental Assessment for the

Round Star Project, Forest Service, Flathead National Forest,

Tally Lake Ranger District.

Identification of Objectors: Lead Objector:

Michael Garrity,

Executive Director,

Alliance for the Wild Rockies (Alliance)

PO Box 505 Helena, MT 59624;

Phone 406-459- 5936.

And for

Sara Johnson Native Ecosystems Council

PO Box 125

Willow Creek, MT 59760

And for

Steve Kelly, Director

Council on Wildlife and Fish

(Formally known as

Montana Ecosystems Defense Council)

P.O. Box 4641

Bozeman, MT 59772

And for

Jason Christensen, Director

Yellowstone to Uintas Connection

P.O. Box 363
Paris, Idaho 83261

jason@yellowstoneuintas.org

435-881-6917

Signed for Objectors this 6th day of October 2022

/s/

Michael Garrity

Name of the Responsible Official, National Forest, Ranger District where Project is Proposed: The Responsible Official, Tally Lake District Ranger William Mulholland, has made available a Draft Decision Notice (DDN) and Finding of NO Significant Impact (FONSI) for the Round Star Project. The Round Star project area is approximately 28,300 acres and is located within Flathead County, MT, approximately 13 miles west of Whitefish, MT, extending from Round Meadow to the northwest corner of Star Meadows.

This project proposes approximately 6324 acres of commercial logging, 2489 acres of precommercial logging, 243 acres of other logging, 134 acres of burning, and 22.1 miles of new road construction.

Description of those aspects of the proposed project addressed by the objection, including specific issues related to the proposed project if applicable, how the objector believes the environmental analysis, Finding of No Significant Impact, and Draft Decision Notice (DDN) specifically violates law, regulation, or policy. The selected alternative, which includes 9,190 acres of vegetation management on National Forest System lands, motorized access management, and a non-motorized trail system. The DDN calls for 2184 acres of commercial logging and 2420 acres of non-commercial logging and burning. As a result of the Draft DN, individuals and members of the above mentioned groups would be directly and significant-ly affected by the logging and associated activities. Objectors (hereafter AWR) are conservation organizations working to ensure protection of biological diversity and ecosystem integrity in the Wild Rockies bioregion (including the FNF). The individuals and members use the project area for recreation and other forest related activities. The selected

alternative would also further degrade the water quality, wildlife and fish habitat. These activities, if implemented, would adversely impact and irreparably harm the natural qualities of the Project Area, the surrounding area, and would further degrade the watersheds and wildlife habitat.

1.Objectors names and addresses:

Lead Objector Mike Garrity

Executive Director

Alliance for the Wild Rockies

P.O. Box 505

Helena, MT 59624

Phone 406 459-5936

And for

Sara Johnson

Native Ecosystems Council

P.O. Box 125

Willow Creek, MT 59760

And for

Steve Kelly

Director Council on Wildlife and Fish

(Formally Montana Ecosystem Defense Project)

P.O. Box 4641

Bozeman, MT 59772

2. Signature of Lead Objector: Signed this 26th day of August 2022 by Lead Objector,

/s/ Michael Garrity

3. Lead Objector:

Michael Garrity, Alliance for the Wild Rockies

4. Name of the Proposed Project, Responsible Official, National Forest and Ranger District where Project is: Round Star Project; Tally Lake District Ranger William Mulholland is the

Responsible Official; Flathead National Forest, Tally Lake Ranger District.

The project is in the Tally Lake Ranger District of the Flathead National Forest. Ranger Mulholland chose the selected action alternative which includes 9,190 acres of logging and burning on National Forest System lands and 22.1 miles of new logging roads in the Draft Decision Notice and FONSI.

NOTICE IS HEREBY GIVEN that Alliance objects pursuant to 36 CFR section 218 to the Responsible Official's adoption of the selected Alternative. As discussed below, the Round Star Project as proposed violates the Clean Water Act, the National Environmental Policy Act (NEPA), the National Forest Management Act (NFMA), the Endangered Species Act (ESA), the Flathead Forest Plan and the Administrative Procedure Act (APA).

The Round Star project area is approximately 28,300 acres and is located within Flathead County, MT, approximately 13 miles west of Whitefish, MT, extending from Round Meadow to the northwest corner of Star Meadows.

Specific Issues Related to the Proposed Projects, including how Objectors believes the Environmental Analysis or Draft Record of Decision specifically violates Law, Regulation, or Policy: We included this under number 8 below.

Thank you for the opportunity to object on the Round Star Project. Please accept this objection from me on behalf of the Alliance for the Wild Rockies, Council on Wildlife and Fish, Yellowstone to Uintas Connection, and Native Ecosystems Council.

6. Suggested Remedies that would Resolve the Objection: We recommend that the "No Action Alternative" be selected. We have also made specific recommendations after each problem.

7. Supporting Reasons for the Reviewing Office to Consider: This landscape has very high wildlife values, including for the threatened grizzly bear, lynx, big game species, and wildlife dependent upon unlogged. The project area will be concentrated within some of the best wildlife habitat in this landscape which is an important travel corridor for wildlife such as lynx, bull trout, grizzly bears, and wolverine. The agency will also be exacerbating an ongoing problem of displacing elk to adjacent private lands in the hunting season due to a lack of security on public lands. The public interest is not being served by this project. Suggested Remedies to Resolve the Objection: We recommend that the "No Action Alternative" be selected. We have also made specific recommendations after each problem.

Supporting Reasons for the Reviewing Office to Consider This landscape has very high wildlife values, including for the threatened grizzly bear, and lynx, big game species, and wildlife dependent upon mature forest habitat. The project area is

concentrated within some of the best wildlife habitat in this landscape which is an important travel corridor for wildlife such as lynx, grizzly bears, and wolverine. The agency will also be exacerbating an ongoing problem of displacing big game to adjacent private lands in the hunting season due to a lack of security on public lands. The public interest is not being served by this project. Thank you for the opportunity to object.

NOTICE IS HEREBY GIVEN that, pursuant to 36 CFR Part 218, AWR objects to the Draft Decision Notice (DDN) and Finding of No Significant Impact (FONSI) with the legal notice published on August 22, 2022, including the Responsible Official's adoption of proposed or selected Alternative. Alliance is objecting to this project on the grounds that implementation of the Selected Alternative is not in accordance with the laws governing management of the national forests such as the FLPMA, ESA, NEPA, NFMA, the Flathead National Forest Forest Plan and the APA, including the implementing regulations of these and other laws, and will result in additional

degradation in already degraded watersheds and mountain slopes, further upsetting the wildlife habitat, ecosystem and human communities. Our objections are detailed below. If the project is approved as proposed, individuals and members of the above-mentioned groups would be directly and significantly affected by the logging and associated activities. Objectors are conservation organizations working to ensure protection of biological diversity and ecosystem integrity in the Wild Rockies bioregion (including the FNF). The individuals and members use the Flathead National Forest and the project area for recreation and other forest related activities. The selected alternative would also further degrade the water quality, wildlife and fish habitat. These activities, if implemented, would adversely impact and irreparably harm the natural qualities of the Project Area, the surrounding area, and would further degrade the watersheds and wildlife habitat.

Statements that Demonstrates Connection between Prior Specific Written Comments on the Particular Proposed Project and the Content of the Objection.

ROADS

We wrote in our comments:

The Forest Service is proposing clearcuts bigger than 40 acres but the Forest Service has not notified the public of this by announcing a separate 60 day comment period on openings greater than 40 acres is size. Please do this. The Forest Plan allows openings bigger than 40 acres is rare circumstances but the Flathead has been proposing openings (clearcuts) bigger than 40 acres in every timber sale under the new Forest Plan. This make a mockery of the Forest Plan.

The Forest Service responded:

Openings larger than 40 acres were described in the initial scoping for the project proposal, which was published in December 2021. The Round Star Project does not exceed the maximum opening sizes listed in Table 21 of the forest plan; therefore a 60-day public notice is not required. Harvest created openings are a key element in meeting the goals of the forest plan over time, and these openings follow natural topographic and landscape features wherever possible and are designed to meet desired ecological conditions, characteristic with natural disturbance regimes.

The new NFMA regulations state that clearcuts greater than 40 acres are supposed to be the exception rather than the rule. Every timber sale project that the Flathead National Forest has signed a decision for under the revised forest plan has opening greater than 40 acres. The Round Star project is therefore in violation of NEPA, NFMA, and the APA.

Please see the Revised Flathead Forest Plan Standards (FW-STD-TIMB)

07 The maximum opening size created by clearcutting, seedtree cutting, shelterwood seed cutting, or other cuts designed to regenerate an even-aged stand of timber in a single harvest operation shall be 40 acres. This standard applies to newly created harvest openings on NFS lands only and need not consider existing recently created openings on NFS, adjacent private, or other agency lands.

Exceptions to the 40-acre maximum opening size standard may occur when determined necessary to help achieve desired ecological conditions for the plan area. These desired conditions include providing for forest patterns and patch sizes that are consistent with natural disturbance regimes (see FW-DC-TE&V-03, FW-DC-TE&V-18; FW-DC-TE&V-19, FW-DC-SCN-01), providing for habitat that contributes to long-term persistence of native plant and animal species (see FW-DCTE&V-04), maintenance of instream channel conditions (see FW-DC-WTR-04 and 08), and maintaining or creating forests resistant and resilient to future disturbances (see FW-DC-TIMB-01 and 07). Maximum opening size exceptions to the standard are displayed in table 21.

Table 21. Maximum opening size (acres) created by even-aged harvest in one harvest operation Potential vegetation type	Maximum opening size
Warm-dry and warm-moist	80
Cool-moist	150
Cold	90

The DDN and EA do not adequately explain how openings bigger than 40 acres provides for habitat that contributes to long-term persistence of native plant and animal species (see FW-DCTE&V-04), maintenance of instream channel conditions in violation of the revised Forest Plan.

The DDN and EA did not adequately consider the cumulative impacts of the clearcutting, intensive logging, and road building on native species including lynx, bull trout, grizzly bears and old growth dependent species.

The Tally Lake Ranger District is one of the more heavily logged, clearcut and roaded forest in Montana and much of the Tally Lake Ranger District is lynx critical habitat, wolverine habitat, and grizzly bear habitat. None of these species benefit from more logging roads and more clearcuts.

Recent scientific findings undermine the Forest Plan/NRLMD direction for management of lynx habitat. This creates a scientific controversy the FS fails to resolve, and in fact it essentially ignores it.

For one, Kosterman, 2014 found that 50% of lynx habitat must be mature undisturbed forest for it to be optimal lynx habitat where lynx can have reproductive success and no more than 15% of lynx habitat should be young clearcuts, i.e. trees under 4 inched dbh. Young regenerating forest should occur only on 10-15% of a female lynx home range, i.e. 10-15% of an LAU. This renders inadequate the agency's assumption in the Forest Plan/NRLMD that 30% of lynx habitat can be open, and that no specific amount of mature forest needs to be conserved. Kosterman, 2014 demonstrates that Forest Plan/NRLMD standards are not adequate for lynx viability and recovery.

Also, the Forest Plan essentially assumes that persistent effects of vegetation manipulations other than regeneration logging and some intermediate treatments are essentially nil. However, Holbrook, et al., 2018 "used univariate analyses and hurdle regression models to evaluate the spatio-temporal factors influencing lynx use of treatments." Their analyses "indicated ...there was a consistent cost in that lynx use was low up to ~10 years after all silvicultural actions." (Emphasis added.) From their conclusions:

First, we demonstrated that lynx clearly use silviculture treatments, but there is a ~10 year cost of implementing any treatment (thinning, selection cut, or regeneration cut) in terms of resource use by Canada lynx. This temporal cost is associated with lynx preferring advanced regenerating and

mature structural stages (Squires et al., 2010; Holbrook et al., 2017a) and is consistent with previous work demonstrating a negative effect of precommercial thinning on snowshoe hare densities for ~10 years (Homyack et al., 2007). Second, if a treatment is implemented, Canada lynx used thinnings at a faster rate post- treatment (e.g.,~20 years posttreatment to reach 50% lynx use) than either selection or regeneration cuts (e.g., ~34–40 years post-treatment to reach 50% lynx use). Lynx appear to use regeneration and selection cuts similarly over time suggesting the difference in vegetation impact between these treatments made little difference concerning the potential impacts to lynx (Fig. 4c). Third, Canada lynx tend to avoid silvicultural treatments when a preferred structural stage (e.g., mature, multi-storied forest or advanced regeneration) is abundant in the surrounding landscape, which highlights the importance of considering landscape-level composition as well as recovery time. For instance, in an area with low amounts of mature forest in the neighborhood, lynx use of recovering silvicultural treatments would be higher versus treatments surrounded by an abundance of mature forest (e.g., Fig. 3b). This scenario captures the importance of post-treatment recovery for Canada lynx when the landscape context is generally composed of lower quality habitat. Overall, these three items emphasize that both the spatial arrangement and composition as well as recovery time are central to balancing silvicultural actions and Canada lynx conservation.

So Holbrook et al., 2018 fully contradict Forest Plan assumptions that clearcuts/regeneration can be considered useful lynx habitat as early as 20 years post-logging.

Results of a study by Vanbianchi et al., 2017 also conflict with Forest Plan/NRLMD assumptions: “Lynx used burned areas as early as 1 year postfire, which is much earlier than the 2–4 decades postfire previously thought for this predator.” The NRLMD erroneously assumes clearcutting/regeneration logging have basically the same temporal effects as stand-replacing fire as far as lynx re-occupancy.

Kosterman, 2014, Vanbianchi et al., 2017 and Holbrook, et al., 2018, Holbrook 2019 demonstrate that Forest Plan direction is not adequate for lynx viability and recovery, as the FS assumes. Holbrook 2019 such all lynx habitat must be surveyed. You have not done this.

Please see the attached satellite photo of the project area and the Tally Lake Ranger district that documents all of the clearcutting, extensive logging and road building in the area and in lynx critical habitat.

REMEDY: Withdraw the draft DN and FONSA and write a supplement EA or an EIS that fully complies with the law and and analyzes the cumulative effect of clearcutting on grizzly bears, lynx, lynx critical habitat, whitebark pine, wolverine, monarch butterflies, goshawks, and all native fish and wildlife in the Tally Lake Ranger District or choose the No Action alternative.

We wrote in our comments:

How can the Flathead justify building 21 more miles of roads and an undisclosed number of temporary roads in addition to commercial and mechanical logging in the inner and outer riparian zones, and 36 logging units that are over 40 acres in watersheds that are already impaired from logging and roads? An Environmental Impact Statement is necessary to analyze the impacts or better yet just drop this project. NEPA requires that you inform the public of exactly where and how many miles of roads will be built even if they are so called temporary roads.

The Forest Service responded:

- ***Proposed system and temporary roads are disclosed in the EA (pg. 5 Table 3) and the locations are shown in Appendix C.***
  Several criteria were considered when determining whether each road in the Round Star Project should be built as a long-term system road or a short-term temporary road and rehabilitated after use. These criteria include length, complexity of construction, the number and complexity of stream crossings and potential value for long term vegetation management. System roads provide long term access that will be needed again in the

future, and it would not be economical to use them as temporary roads.

As documented in the Environmental Impacts section of the EA (page 15), the Round Star Project will not have significant adverse effects on the environment. This draft decision notice includes a finding of no significant impact, which identifies the context and intensity factors that were considered for evaluating the significance of an action on a local, regional, and global scale. The specific concerns raised by the commenter are also addressed in the finding of no significant impact and provides rationale for why the project activities do not result in significant effects that would require the preparation of an environmental impact statement. Therefore, an EIS is not required.

There will be significant impacts and cumulative impacts as we documents earlier. We still contend that the Forest Service must complete a full environmental impact statement (EIS) for this Project because the scope of the Project will likely have a significant individual and cumulative impact on the environment. Alliance has reviewed the statutory and regulatory requirements governing National Forest Management projects, as well as the relevant case law, and compiled a check-list of issues that must be included in the EIS for the Project in order for the Forest Service's analysis to comply with the law. The project is in violation of NEPA, NFMA, the APA and the ESA.

REMEDY

Withdraw the DDN and FONSI and write an EIS that fully complies with the law or choose the No Action alternative.

We wrote in our comments:

Please analyze the cumulative impacts of this project on grizzly bears, lynx, lynx critical habitat, whitebark pine, wolverine, monarch butterflies, goshawks, and all native fish and wildlife in the Tally Lake Ranger District.

The EA states, "Connectivity would be impacted by large openings which lynx avoid." How will this project help recover lynx and lynx critical habitat since connectivity would be impacted?

Creating large, homogenous regeneration openings does not provide microsite diversity. There are reasons that Congress sought to limit the size of regeneration openings and this project works contrary to that intent.

The Forest Service responded:

Wildlife habitat was a major consideration throughout the project planning process. Affects to wildlife are documented in the updated EA in species-specific sections on pages 59-81. Additional information is available in the project file and available upon request.

Page 69 of the EA states:

None of the LAUs would exceed 30 percent stand initiation with implementation of the proposed action. Regeneration treatments would not occur on more than 15 percent of lynx

habitat on National Forest System lands within any of the affected LAUs in a ten-year period including the proposed action (VEG S2). Proposed precommercial thinning in the WUI would reduce stand initiation lynx forage habitat by an estimated 1,396 acres using an exemption to the VEG S5 standard for fuel treatment projects within the WUI. 374 acres of vegetation management is proposed in multistory lynx forage habitat in the WUI which includes 220 acres of regeneration and 154 acres of intermediate treatments. An exemption to the VEG S6 standard for fuel treatment projects within the WUI would be used to complete these activities. Connectivity of forested cover and multistory lynx habitat is greatly limited in the Sheppard LAU due to a 1997 wildland fire and moderately limited in the Evers Reid LAU due to areas of low elevation and past vegetation management. While multistory lynx habitat would be reduced in Both LAUs, the variety of treatment would create a better mosaic of stand conditions. The Lost Tally LAU has adequate connectivity throughout. Vegetation management, road and trail management and construction, and associated activities could disturb or temporarily displace lynx during implementation. 17.6 miles of permanent road and 1.3 miles of temporary road are proposed through lynx habitat. All proposed recreation development activities would occur outside of mapped lynx habitat.

As we wrote in our comments:

Please see the attached paper titled: "Management of forests and forest carnivores: Relating landscape mosaics to

habitat quality of Canada lynx at their range periphery" by Holbrook et al. 2019. It states that all lynx habitat has to be monitored for lynx.

The vast majority of the project area is in lynx critical habitat.

The best available science is now Koaterman and Holbrook.

Recent scientific findings undermine the Forest Plan/NRLMD direction for management of lynx habitat. This creates a scientific controversy the FS fails to resolve, and in fact it essentially ignores it.

For one, Kosterman, 2014 found that 50% of lynx habitat must be mature undisturbed forest for it to be optimal lynx habitat where lynx can have reproductive success and no more than 15% of lynx habitat should be young clearcuts, i.e. trees under 4 inched dbh. Young regenerating forest should occur only on 10-15% of a female lynx home range, i.e. 10-15% of an LAU. This renders inadequate the agency's assumption in the Forest Plan/NRLMD that 30% of lynx habitat can be open, and that no specific amount of mature forest needs to be conserved. Kosterman, 2014 demonstrates that Forest Plan/NRLMD standards are not adequate for lynx viability and recovery.

Also, the Forest Plan essentially assumes that persistent effects of vegetation manipulations other than regeneration logging and some intermediate treatments are essentially nil. However, Holbrook, et al., 2018 "used univariate analyses and hurdle regression models to evaluate the spatio-temporal factors influencing lynx use of treatments." Their analyses

"indicated ...there was a consistent cost in that lynx use was low up to ~10 years after all silvicultural actions." (Emphasis added.) From their conclusions:

The Forest Service did not provide any evidence that they have monitored lynx habitat for lynx in violation of the ESA, NFMA, NEPA and the APA.

REMEDY

Withdraw the DDN and FONSI and write an EIS that fully complies with the law or choose the No Action Alternative.

We wrote in our comments:

Please disclose how often the Project area has been surveyed for whitebark pine, wolverines, Monarch butterflies, grizzly bears, pine martins, northern goshawks, and lynx.

The Forest Service responded:

Field data was disclosed in the EA as a "Data Source" for species analysis. All field data collected during surveys are incorporated into the analysis for each species analyzed. Tabular data from field surveys is found in project file exhibit Q-21. Observations of Canada lynx within and near the project area are documented in project file exhibit Q-2 and discussed on page 60 of the updated EA. The forest plan FEIS reviews

monitoring documented across the forest including the Round Star project area (Vol 2., pp. 197- 198) Additional reports are available upon request (project file exhibit Q-19 & Q-20).

There is no evidence that the Forest Service has done any recent monitoring of the species that we requested. The project is in violation of NEPA, NFMA, the APA, and the ESA.

REMEDY

Withdraw the DDN and FONSI and write an EIS that fully complies with the law or choose the No Action Alternative.

We wrote in our comments:

Please include a no commercial logging alternative.

The Forest Service did not respond un violation of NEPA and

the APA.

REMEDY

Withdraw the DDN and FONSI and write an EIS that fully complies with the law or choose the No Action Alternative.

We wrote in our comments:

NECESSARY ELEMENTS FOR PROJECT EIS or an EA since that is what you have chosen to do.

A. Disclose all Flathead National Forest Plan requirements for logging/burning projects and explain how the Project complies with them;

B. Disclose the acreages of past, current, and reasonably foreseeable logging, grazing, and road-building activities within the Project area;

C. Solicit and disclose comments from the Montana Department of Fish, Wildlife, and Parks regarding the impact of the Project on wildlife habitat;

D. Solicit and disclose comments from the Montana Department of Environmental Quality regarding the impact of the Project on water quality;

E. Disclose the biological assessment for the candidate, threatened, or endangered species with potential and/or actual habitat in the Project area;

F. Disclose the biological evaluation for the sensitive and management indicator species with potential and/or actual habitat in the Project area;

G. Disclose the snag densities in the Project area, and the method used to determine those densities;

H. Disclose the current, during-project, and post-project road densities in the Project area; and disclose the number of road closure violations in the Ranger District during the last 5 years.

I. Disclose the Flathead National Forest's record of compliance with state best management practices regarding

stream sedimentation from ground-disturbing management activities;

J. Disclose the Flathead National Forest's record of compliance with its monitoring requirements as set forth in its Forest Plan;

K. Disclose the Flathead National Forest's record of compliance with the additional monitoring requirements set forth in previous DN/FONSIs and RODs on the Flathead National Forest;

L. Disclose the results of the field surveys for threatened, endangered, sensitive, and rare plants in each of the proposed units;

M. Disclose the level of current noxious weed infestations in the Project area and the cause of those infestations;

N. Disclose the impact of the Project on noxious weed infestations and native plant communities;

O. Disclose the amount of detrimental soil disturbance that currently exists in each proposed unit from previous logging and grazing activities;

P. Disclose the expected amount of detrimental soil disturbance in each unit after ground disturbance and prior to any proposed mitigation/remediation;

Q. Disclose the expected amount of detrimental soil disturbance in each unit after proposed mitigation/ remediation;

R. Disclose the analytical data that supports proposed soil mitigation/remediation measures;

S. Disclose the timeline for implementation;

T. Disclose the funding source for non-commercial activities proposed;

U. Disclose the current level of old growth forest in each third order drainage in the Project area;

V. Disclose the method used to quantify old growth forest acreages and its rate of error based upon field review of its predictions;

W. Disclose the historic levels of mature and old growth forest in the Project area;

X. Disclose the level of mature and old growth forest necessary to sustain viable populations of dependent wildlife species in the area;

Y. Disclose the amount of mature and old growth forest that will remain after implementation;

Z. Disclose the amount of current habitat for old growth and mature forest dependent species in the Project area;

AA. Disclose the amount of habitat for old growth and mature forest dependent species that will remain after Project implementation;

BB. Disclose the method used to model old growth and mature forest dependent wildlife habitat acreages and its rate of error based upon field review of its predictions;

CC. Disclose the amount of big game (moose and elk) hiding cover, winter range, and security currently available in the area;

DD. Disclose the amount of big game (moose and elk) hiding cover, winter range, and security during Project implementation;

EE. Disclose the amount of big game (moose and elk) hiding cover, winter range, and security after implementation;

FF. Disclose the method used to determine big game hiding cover, winter range, and security, and its rate of error as determined by field review;

GG. Disclose and address the concerns expressed by the ID Team in the draft Five-Year Review of the Forest Plan regarding the failure to monitor population trends of MIS, the inadequacy of the Forest Plan old growth standard, and the failure to compile data to establish a reliable inventory of sensitive species on the Forest;

HH. Disclose the actions being taken to reduce fuels on private lands adjacent to the Project area and how those activities/or lack thereof will impact the efficacy of the activities proposed for this Project; II.Disclose the efficacy of the proposed activities at reducing wildfire risk and severity in the Project area in the future, including a two-year, five-year, ten-year, and 20-year projection;

JJ. Disclose when and how the Flathead National Forest made the decision to suppress natural wildfire in the Project area and replace natural fire with logging and prescribed burning;

KK. Disclose the cumulative impacts on the Forest-wide level of the Flathead National Forest's policy decision to replace natural fire with logging and prescribed burning;

LL. Disclose how Project complies with the Roadless Rule;

MM. Disclose the impact of climate change on the efficacy of the proposed treatments;

NN. Disclose the impact of the proposed project on the carbon storage potential of the area;

OO. Disclose the baseline condition, and expected sedimentation during and after activities, for all streams in the area;

PP. Disclose maps of the area that show the following elements:

1.Past, current, and reasonably foreseeable logging units in the Project area;

2.Past, current, and reasonably foreseeable grazing allotments in the Project area;

3.Density of human residences within 1.5 miles from the Project unit boundaries;

4.Hiding cover in the Project area according to the Forest Plan definition;

5.Old growth forest in the Project area;

6.Big game security areas;

7.Moose winter range;

The Forest Service responded:

As documented in the Environmental Impacts section of the EA (page 15), the Round Star Project will not have significant adverse effects on the environment. Cumulative effects analysis is included in the EA. This draft decision notice includes a finding of no significant impact which identifies the context and intensity factors that were considered for evaluating the significance of an action on a local, regional, and global scale. The specific concerns raised by the commenter are also addressed in the finding of no significant impact and provides rationale for why the project activities do not result in significant effects that would require the preparation of an environmental impact statement. Therefore, an EIS is not required. Submitted citations were reviewed and incorporated where appropriate into the project analysis.

The Forest Service did not respond to our comments other than to write that the Round Star Project will not have significant adverse effects on the environment. Therefore the project is n violation of NEPA, NFMA, the APA, the ESA, and the Clean Water Act.

REMEDY

Withdraw the DDN and FONSI and write an EIS that fully complies with the law or choose the No Action Alternative.

We wrote in our comments:

Did the Forest Service conduct NEPA analysis (i.e. an EA or EIS) for the Fire Plan the Forest is using for this project? If you don't the project will be in violation of NEPA, NFMA, and the APA.

Please provide a map showing the WUI and the locations of all homes in comparison to the project area.

Please explain why the area qualifies as Wildland Urban Interface (WUI).

Since the Forest Service did not conduct NEPA for the Fire Plan, please disclose the cumulative effects of Forest-wide implemen- tation of the Fire Plan in the project EIS, or EA if you refuse to write an EIS, to avoid illegally tiering to a non-

NEPA document. Specifically analyze the decision to prioritize mechanical, human-designed, somewhat arbitrary treatments as a replacement for naturally-occurring fire.

Did the Forest Service conduct ESA consultation for the Fire Plan?

The WUI was not properly defined to the public in the Round Star Project.

The Flathead Forest Plan has a map of the WUI (Figure 1-13). This is apparently the WUI delineation used for the Round Star Project. We request that the agency clearly define to the public where valid "communities-at-risk" exist within one mile of the Round Star project boundary. The delineation of the WUI is important as per the Lynx Amendment, it allows for no protections and management of lynx habitat, including critical lynx habitat (D0069). Similar comment: Please provide a map showing the WUI and the locations of all homes in

comparison to the project area. Please explain why the area qualifies as WUI.

We wrote in our 2nd comments:

Please provide an accurate definition of the WUI as per the HFRA definition, including distance from a community and the density of structures/people within the total WUI zone, such as the interface zone. If there is a conflict between the WUI and elk winter range and fawning/calving areas, will the agency complete a Forest Plan amendment to address failures to adhere to guidelines of the Forest Plan?

Please define and map the Wildland Urban Interface (WUI) as per established definitions in the Healthy Forest Restoration Act (HFRA).

The HFRA defines the WUI as areas within 1.5 miles of a community-at-risk. These communities-at-risk are defined as interface zones, with over 250 people per square mile, and intermix zones, with from 28-250 people per square mile. Please define the density of people within the mapped WUI, and define how these densities were measured.

Since the Forest Service did not conduct NEPA for the 2011 and 2020 Flathead County Community Wildfire Protection Plans, please disclose the cumulative effects of

Forest-wide implementation of the Fire Plan in the project EIS, or EA to avoid illegally tiering to a non- NEPA document. Specifically analyze the decision to prioritize mechanical, human-designed, somewhat arbitrary treatments as a replacement for naturally-occurring fire.

Did the Forest Service conduct ESA consultation for the 2011 and 2020 Flathead County Community Wildfire Protection Plans? If not please do so.

The Forest Service responded:

- ***On page 98 of our June 2022 Environmental Assessment is a map showing the WUI boundary overlaid with the Round Star Project. The WUI boundary is defined not by the Flathead National Forest But by Flathead County in their community wildfire protection plan (CWPP) which can be found at the following location: https://flathead.mt.gov/fireservice/documents/Community_Wildfire_Protection_Plan_2020_v3_July_9_final.pdf***
  The Northern Rockies Lynx Management Direction is a retained decision in the 2018 Forest Plan, incorporated as

Appendix A (pA-16), which defines Wildland urban interface (WUI) as, "Use the definition of WUI found in the Healthy Forests Restoration Act. The full text can be found at HFRA § 101. The WUI as an at-risk community that is defined in a community wildland protection plan or that is a certain distance around a community if a community protection plan is not available. The WUI boundary used in the Round Star project is the most current Flathead County WUI boundary (exhibit Q-1) which is different than what was analyzed under the Flathead Forest FEIS and consultation with the USFWS.

The Forest Service did not respond to all of our comments.

The Round Star DDN, FONSI and EA did not demonstrate that the project uses a legal definition of the Wildland Urban Interface (WUI) in violation of NEPA, NFMA, the Healthy Forest Act and the APA. The Greenhorn project purpose and need is based on false assumptions in violation of NEPA, NFMA and the APA.

The current fuel/fire hazard situation on land of all ownerships within the WUI (at least the WUI that's relevant to this area) must be displayed on a map. More importantly, the fuel/fire hazard situation post-project on land of all ownerships within the WUI must also be displayed on a map. Based on this mapping of current and projected conditions, please accurately disclose the threats to private structures and people under those scenarios, for all alternatives. It must be discernible why some areas are included for treatment and others are not.

Page 1 of the EA states: “Approximately 70 percent of the project area lies within the wildland urban interface (WUI), as identified by the Madison County community wildfire protection plan (CWPP). The Forest Service manages public lands on the Beaverhead-Deerlodge National Forest for multiple purposes and resources, in addition to those listed above.”

Did the Forest Service take public comment on boundaries of the wildland urban interface as required by NEPA?

Does the wildland urban interface (WUI), as identified by the Madison County community wildfire protection plan (CWPP) meet the definition of the wildland urban interface under the Healthy Forest Restoration Act (HFRA)?

The HFRA defines wildland urban interface as follows: “The term ‘wildland-urban interface’ means– (A) an area within or adjacent to an at-risk community that is identified in recommendations to the Secretary in a community wildfire protection plan . . . .” 16 U.S.C. § 6511 (16)(emphasis added). The HFRA defines “at-risk community” as follows:

The term “at-risk community” means an area-- (A) that is comprised of--

(i) an interface community as defined in the notice. . . (66 Fed. Reg. 753, January 4, 2001); or

(ii) a group of homes and other structures with basic infrastructure and services (such as utilities and collectively

maintained transportation routes) within or adjacent to Federal land;

(B) in which conditions are conducive to a large-scale wildland fire disturbance event; and

(C) for which a significant threat to human life or property exists as a result of a wildland fire disturbance event.

16 U.S.C. § 6511 (1) (emphases added). In turn, the cited Federal Register notice mandates: "The development density for an interface community is usually 3 or more structures per acre, with shared municipal services. . . . An alternative definition of the interface community emphasizes a population density of 250 or more people per square mile." 66 Fed. Reg at 753, 2001 WL 7426.

Please explain how the Madison County community wildfire protection plan (CWPP) defines the Wildland Urban Interface and if it complies with the Healthy Forest Restoration Act.

NEPA "requires a federal agency such as the Forest Service to prepare a detailed EIS for all 'major Federal actions significantly affecting the quality of the human environment.'" Blue Mountains Biodiversity Project v. Blackwood, 161 F.3d 1208, 1211–12 (9th Cir. 1998) (citing 42 U.S.C. § 4332(2)(C)). "Major reinforces but does not have a meaning independent of significantly []." 40 C.F.R. § 1508.18. "As a preliminary step, an agency may prepare an EA to decide whether the environmental impact of a proposed action is significant enough to warrant preparation of an EIS." Id.; 40 C.F.R. § 1501.2. Before reaching the question of significance, however, there must be an analysis

of whether there is "federal action." See Envtl. Prot. Info. Ctr. v. USFS, 2003 WL 22283969 *9, n.10 (N.D. Cal. 2003).

The CEQ regulations state:

(b) Federal actions tend to fall within one of the following categories: .. .

(2) Adoption of formal plans, such as official documents prepared or approved by federal agencies which guide or prescribe alternative uses of Federal resources, upon which future agency actions will be based.

.. . 40 C.F.R. § 1508.18.

Furthermore, in general, CEQ regulations allow agencies to "tier" from a site-specific NEPA analysis to a programmatic analysis "to eliminate repetitive discussions of the same issues" by "incorporat[ing] discussions from the broader statement by reference. . . . ." 40 C.F.R. § 1502.20. "However, tiering to a document that has not itself been subject to NEPA review is not permitted, for it circumvents the purpose of NEPA." Kern v. BLM, 284 F.3d 1062, 1073 (9th Cir. 2002)). The CEQ regulations are binding on the Forest Service. See Trustees for Alaska v. Hodel, 806 F.2d 1378, 1382 (9th Cir. 1986). The Forest Service does not receive deference when implementing the CEQ regulations because those regulations were not issued by the Forest Service. See U.S. Dep't of Treasury, I.R.S. v. Fed. Labor Relations Auth., 996 F.2d 1246, 1250 (D.C. Cir. 1993) ("We generally do not grant any deference to the [an agency's] interpretation of regulations promulgated by other agencies.")

In violation of NEPA, the Forest Service has not yet conducted a NEPA analysis for the Madison County Wildfire Plan. Other courts have found that other types of fire management plans adopted and implemented by the Forest Service are major federal actions under NEPA. For example, in People of Cal. ex rel. Lockyer v. USFS, the district court found "that the Fire Plan is a major federal action, and so defendant's decision not to conduct any environmental review was unreasonable." 2005 WL 1630020 *11 (N.D. Cal. 2005). Likewise, in Environmental Protection Information Center (EPIC) v. USFS, the district court held: "Defendant violated NEPA by failing to prepare an Environmental Assessment or an Environmental Impact Statement in connection with the issuance of the

Six Rivers National Forest Fire Management Plan." 2003 WL 22283969, at *13 (N.D. Cal. 2003). In EPIC, the district court addressed a relevant Ninth Circuit case, Port of Astoria v. Hodel, in which the Ninth Circuit addressed whether a "regional proposal for development and distribution of power" was a federal action under NEPA. 595 F.2d 467, 477–78 (9th Cir. 1979). The proposal was called "Phase 2" and resulted "from an agreement between [the agency], its direct-service industrial customers, and the public, cooperative, and investor-owned utilities in [the] region." Id. The agency argued that Phase 2 was not a federal program, but the Ninth Circuit rejected that argument: "although Phase 2 is a cooperative enterprise involving [the agency] and nonfederal participants, it is [the agency's] participation that integrates the entire program. . . . Without [the agency] it is doubtful that Phase 2 would ever have been developed or, if developed, would have become feasible." Id.

Similarly, in this case, although the Wildfire Plan was developed by the Madison County Steering Committee, which includes the Forest Service and other nonfederal participants, the bulk of the Wildfire Plan addresses fire management on National Forest lands in Madison County, and therefore, "it is doubtful that [the Wildfire Plan] would ever have been developed or, if developed, would have become feasible," i.e., implemented, without the Forest Service's participation.

Alternatively or additionally, even if the Wildfire Plan did not require NEPA analysis at the time it was created, once the wildland urban interface designation from the Plan was used to justify and authorize this site-specific project, NEPA analysis was required under the doctrine of "tiering." The seminal Ninth Circuit case on this issue is Kern v. BLM, 284 F.3d 1062 (9th Cir. 2002). In Kern, the Ninth Circuit addressed the BLM's adoption of guidelines for management of a fungus affecting Port Orford cedar trees. In an earlier case, the Ninth Circuit had denied a claim that the guidelines themselves were a major federal action that required NEPA analysis.

The FS must have a detailed long-term program for maintaining the allegedly safer conditions, including how areas will be treated in the future following proposed treatments, or how areas not needing treatment now will be treated as the need arises. The public at large and private landowners must know what the scale of the long-term efforts must be, including the amount of funding necessary, and the likelihood based on realistic funding

scenarios for such a program to be adequately and timely funded.

The FS must assess the fuel and fire risk situation across land ownership boundaries to understand, and disclose to the public, the likely fire scenarios across the area's landscape. Only then can the context of your proposal be adequately weighed on its merits and evaluated on its merits.

The FS (Cohen, 1999) reviewed current scientific evidence and policy directives on the issue of fire in the wildland/urban interface and recommended an alternative focus on structure ignitability rather than extensive wildland fuel management:

> The congruence of research findings from different analytical methods suggests that home ignitability is the principal cause of home losses during wildland fires… Home ignitability also dictates that effective mitigating actions focus on the home and its immediate surroundings rather than on extensive wildland fuel management.

> [Research shows] that effective fuel modification for reducing potential WUI fire losses need only occur within a few tens of meters from a home, not hundreds of meters or more from a home. This research indicates that home

> losses can be effectively reduced by focusing mitigation efforts on the structure and its immediate surroundings. Those characteristics of a structure's materials and design and the surrounding flammables that determine the potential for a home to ignite during wildland fires (or any fires outside the home) will, hereafter, be referred to as home ignitability.
>
> The evidence suggests that wildland fuel reduction for reducing home losses may be inefficient and ineffective. Inefficient because wildland fuel reduction for several hundred meters or more around homes is greater than necessary for reducing ignitions from flames. Ineffective because it does not sufficiently reduce firebrand ignitions (Cohen, 1999)

That research also recognizes “the imperative to separate the problem of the wildland fire threat to homes from the problem of ecosystem sustainability due to changes in wildland fuels” (Ibid).

Please consider that thinning can result in faster fire spread than in the unthinned stand. Graham, et al., 1999a point out that fire modeling indicates:

> For example, the 20-foot wind speed must exceed 50 miles per hour for midflame wind speeds to reach 5 miles per hour within a dense Stand (0.1 adjustment factor). In contrast, in an open stand (0.3 adjustment factor), the same midflame wind speeds would occur at only a 16-mile-per-hour wind at 20 feet.

Graham, et al., 1999a also state:

> Depending on the type, intensity, and extent of thinning, or other treatment applied, fire behavior can be improved (less severe and intense) or exacerbated." … Fire intensity in thinned stands is greatly reduced if thinning is accompanied by reducing the surface fuels created by the cuttings. Fire has been successfully used to treat fuels and decrease the effects of wildfires especially in climax ponderosa pine forests (Deeming 1990; Wagel and Eakle 1979; Weaver 1955, 1957). In contrast, extensive amounts of untreated logging slash contributed to the devastating fires during the late 1800s and early 1900s in the inland and Pacific Northwest forests.

In their conclusion, Graham, et al., 1999a state:

> Depending on intensity, thinning from below and possibly free thinning can most effectively alter fire behavior by reducing crown bulk density, increasing crown base height, and changing species composition to lighter crowned and fire-adapted species. Such intermediate treatments can reduce the severity and intensity of wildfires for a given set of physical and weather variables. But crown and selection thinning would not reduce crown fire potential.

Since the scientific literature suggests that your thinning activities will actually increase the rate of fire spread, you need to reconcile such findings with the contradictory assumptions expressed in your scoping letter.

Please see the column below by Dr. Chad Hanson.

https://thehill.com/blogs/congress-blog/energy-environment/590415-logging-makes-forests-and-homes-more-vulnerable-to

Logging makes forests and homes more vulnerable to wildfires

The West has seen some really big forest fires recently, particularly in California's Sierra Nevada and the Cascade Mountains of Oregon. Naturally, everyone is concerned and elected officials are eager to be seen as advancing solutions. The U.S. Senate is negotiating over the Build Back Better bill, which currently contains nearly $20 billion in logging subsidies for "hazardous fuel reduction" in forests. This term contains no

clear definition but is typically employed as a euphemism for "thinning", which usually includes commercial logging of mature and old-growth trees on public lands. It often includes clearcut logging that harms forests and streams and intensifies wildfires.

Logging interests stand poised to profit, as they tell the public and Congress that our forests are overgrown from years of neglect. Chainsaws and bulldozers are their remedy. Among these interests are agencies like the U.S. Forest Service that financially benefits from selling public timber to private logging companies.

In this fraught context, filled with a swirling admixture of panic, confusion, and opportunism, the truth and scientific evidence are all too often casualties. This, unfortunately, can lead to regressive policies that will only exacerbate the climate crisis and increase threats to communities from wildfire. We can no longer afford either outcome.

Many of the nation's top climate scientists and ecologists recently urged Congress to remove the logging subsidies from the Build Back Better bill. Scientists noted that logging now emits about as much carbon dioxide each year as does burning coal. They also noted that logging conducted under the guise of "forest thinning" does not stop large wildfires that are driven mainly by extreme fire-weather caused primarily by climate change. In fact, it can often make fires burn faster and more intensely toward vulnerable homes. Unprepared towns like Paradise and Grizzly Flats, Calif., unfortunately burned to the ground as fires raced through heavily logged surroundings.

Nature prepares older forests and large trees for wildfires. As trees age, they develop thick impenetrable bark and drop their lower limbs, making it difficult for fire to climb into the tree crowns. Older, dense forests used by the imperiled spotted owl burn in mixed intensities that is good for the owl and hundreds of species that depend on these forests for survival. Our national parks and wilderness areas also burn in lower fire intensities compared to heavily logged areas.

Occasionally even some of the largest trees will succumb to a severe fire but their progeny are born again to rapidly colonize the largest and most severe burn patches. Dozens of cavity-nesting birds and small mammals make their homes in the fire-killed trees. Soon after fire in these forests, nature regenerates, reminiscent of the mythical phoenix, aided by scores of pollinating insects and seed carrying birds and mammals.

Wildfires are highly variable, often depending on what a gust of wind does at a given moment, and even the biggest fires are primarily comprised of lightly and moderately-burned areas where most mature trees survive. By chance, in any large fire there will always be some areas that were thinned by loggers that burned less intense compared to unthinned areas. Before the smoke fully clears, logging interests find those locations and take journalists and politicians to promote their agenda. What they fail to disclose are the many examples where managed forests burned hotter while older, unmanaged forests did the opposite.

This sort of self-serving show boating occurred after the 2020 Creek Fire in the Sierra National Forest in California, as news

stories echoed the logging industry's "overgrown forests" narrative based on a single low-intensity burn area. When all of the data across the entire fire were analyzed, it turned out that logged forests, including commercial "thinning" areas, actually burned the most intensely.

In Oregon, The Nature Conservancy has been conducting intensive commercial thinning on its Sycan Marsh Preserve. Based on satellite imagery, the northern portion of the 414,000-acre Bootleg Fire of 2021 swept through these lands. Within days, TNC began promoting its logging program, focusing on a single location around Coyote Creek, where a "thinned" unit burned lightly. They failed to mention that nearly all of the dense, unmanaged forests burned lightly too in that area. Well-intentioned environmental reporters were misled by a carefully picked example.

Billions of dollars are being wasted to further this false logging industry narrative—funds that instead should be used to prepare communities for more climate-driven wildfires. Congress can instead redirect much needed support to damaged communities so they can build back better and adopt proven fire safety measures that harden homes and clear flammable vegetation nearest structures.

The path forward is simple, with two proven remedies that work. Protect forests from logging so they can absorb more carbon dioxide from the atmosphere and moderate fire behavior, and adapt communities to the new climate-driven wildfire era.

Chad Hanson, Ph.D., is a research ecologist with the John Muir Project and is the author of the 2021 book, "Smokescreen: Debunking Wildfire Myths to Save Our Forests and Our Climate." Dominick DellaSala, Ph.D., is chief scientist with Wild Heritage and the author of Conservation Science and Advocacy for a Planet in Peril: Speaking Truth to Power.

Please see the column below by Chad Hanson and myself.

Opinion by Chad Hanson and
Mike Garrity
https://www.washingtonpost.com/opinions/no-we-cant--and-shouldnt--stop-forest-fires/2017/09/26/64ff718c-9fbf-11e7-9c8d-cf053ff30921_story.html
September 26, 2017

Chad Hanson is a research ecologist with the John Muir Project and is co-editor and co-author of "The Ecological Importance of Mixed-Severity Fires: Nature's Phoenix." Mike Garrity is executive director of the Alliance for the Wild Rockies.

The American West is burning, Sen. Steve Daines (R-Mont.) tells us in his recent Post op-ed. He and officials in the Trump administration have described Western forest fires as catastrophes, promoting congressional action ostensibly to save our National Forests from fire by allowing widespread commercial logging on public lands. This, they claim, will reduce forest density and the fuel for wildfires.

But this position is out of step with current science and is based on several myths promoted by commercial interests.

The first myth is the notion that fire destroys our forests and that we currently have an unnatural excess of fire. Nothing could be further from the truth. There is a broad consensus among scientists that we have considerably less fire of all intensities in our Western U.S. forests compared with natural, historical levels, when lightning-caused fires burned without humans trying to put them out.

There is an equally strong consensus among scientists that fire is essential to maintain ecologically healthy forests and native biodiversity. This includes large fires and patches of intense fire, which create an abundance of biologically essential standing dead trees (known as snags) and naturally stimulate regeneration of vigorous new stands of forest. These areas of "snag forest habitat" are ecological treasures, not catastrophes, and many native wildlife species, such as the rare black-backed woodpecker, depend on this habitat to survive.

Fire or drought kills trees, which attracts native beetle species that depend on dead or dying trees. Woodpeckers eat the larvae of the beetles and then create nest cavities in the dead trees, because snags are softer than live trees. The male woodpecker creates two or three nest cavities each year, and the female picks the one she likes the best, which creates homes for dozens of other forest wildlife species that need cavities to survive but cannot create their own, such as bluebirds, chickadees, chipmunks, flying squirrels and many others.

More than 260 scientists wrote to Congress in 2015 opposing legislative proposals that would weaken environmental laws and increase logging on National Forests under the guise of curbing

wildfires, noting that snag forests are "quite simply some of the best wildlife habitat in forests."

The FS must disclose its transparent, well thought-out long-term strategy for old-growth associated wildlife species viability in a properly-defined cumulative effects analysis area.

“The purpose of the Greenhorn Vegetation Project is to promote resiliency and ecological function by helping to restore and maintain the structure, function, composition and connectivity of Forest terrestrial systems.” EA p. 1.

Since Ecological restoration is the project’s priority, the NEPA document must at least identify all the existing ecological liabilities caused by past management actions. This includes poorly located or poorly maintained roads, high-risk fuel situations caused by earlier vegetation manipulation projects, wildlife security problems by open motorized roads and trails plus those that are closed but violated—and include all those impacts in the analyses.

Any desire to keep a road in the project area WUI must be in harmony with the alleged priority goals (again, to reduce the chances that fire will destroy private structures and harm people), not driven by timber production goals. The analysis must show how all roads will in fact be in harmony with the priority goals.

Proposed activities could artificialize the forest ecosystem. Lodgepole pine is particularly subject to blowdown, once thinned. And any forest condition that is maintained through mechanical manipulation is not maintaining ecosystem function. The proposed management activities would not be integrated well with the processes that naturally shaped the ecosystem and resulted in a range of natural structural conditions. Thus, the need for standards guiding both the delineation of zones where artificializing fuel reduction actions may take place, and that also set snag and down woody debris retention amounts.

That brings us to myth No. 2: that eliminating or weakening environmental laws — and increasing logging — will somehow curb or halt forest fires. In 2016, in the largest analysis ever on this question, scientists found that forests with the fewest environmental protections and the most logging had the highest — not the lowest — levels of fire intensity. Logging removes relatively noncombustible tree trunks and leaves behind flammable "slash debris," consisting of kindling-like branches and treetops.

This is closely related to myth No. 3: that dead trees, usually removed during logging projects, increase fire intensity in our forests. A comprehensive study published in the Proceedings of the National Academy of Sciences thoroughly debunked this notion by showing that outbreaks of pine beetles, which can create patches of snag forest habitat, didn't lead to more intense fires in the area. A more recent study found that forests with high levels of snags actually burn less intensely. This is because flames spread primarily through pine needles and small twigs,

which fall to the ground and soon decay into soil shortly after trees die.

Finally, myth No. 4: that we can stop weather-driven forest fires. We can no more suppress forest fires during extreme fire weather than we can stand on a ridgetop and fight the wind. It is hubris and folly to even try. Fires slow and stop when the weather changes. It makes far more sense to focus our resources on protecting rural homes and other structures from fire by creating “defensible space” of about 100 feet between houses and forests. This allows fire to serve its essential ecological role while keeping it away from our communities.

Lawmakers in Congress are promoting legislation based on the mythology of catastrophic wildfires that would largely eliminate environmental analysis and public participation for logging projects in our National Forests. This would include removing all or most trees in both mature forests and in ecologically vital post-wildfire habitats — all of which is cynically packaged as "fuel reduction" measures.

The logging industry’s political allies have fully embraced the deceptive “catastrophic wildfire” narrative to promote this giveaway of our National Forests to timber corporations. But this narrative is a scientifically bankrupt smoke screen for rampant commercial logging on our public lands. The American people should not fall for it.

Please see the letter from the 260 scientist to Congress which is mentioned in the column above, below.

Open Letter to U.S. Senators and President Obama from Scientists Concerned about Post-fire Logging and Clearcutting on National Forests

As professional scientists with backgrounds in ecological sciences and natural resources management, we are greatly concerned that legislation which passed the House in July 2015, H.R. 2647, would suspend federal environmental protections to expedite logging of both post- fire wildlife habitat and unburned old forests on national forest lands. This legislation would also effectively eliminate most analysis of adverse environmental impacts, and prevent enforcement of environmental laws by the courts.

A similar measure, S. 1691, currently proposed in the U.S. Senate, would override federal environmental laws to dramatically increase post-fire logging, increase logging and clearcutting of mature forests, eliminate analysis of environmental impacts for most logging projects, and effectively preclude enforcement of environmental laws. The bills propose these measures under the guise of "ecosystem restoration," ostensibly to protect national forests from fire.

Not only do these legislative proposals misrepresent scientific evidence on the importance of post-fire wildlife habitat and mature forests to the nation, they also ignore the current state of scientific knowledge about how such practices would degrade the ecological integrity of forest ecosystems on federal lands. We urge you to vote against this legislation, and urge President Obama to veto these bills if they are passed in some form by Congress.

National Forests were established for the public good and include most of the nation's remaining examples of intact forests. Our national forests are a wellspring of clean water for millions of Americans, a legacy for wildlife, sequester vast quantities of carbon important in climate change mitigation, and provide recreation and economic opportunities to rural communities if responsibly managed. Though it may seem at first glance that a post-fire landscape is a catastrophe, numerous scientific studies tell us that even in the patches where forest fires burn most intensely, the resulting wildlife habitats are among the most ecologically diverse on western forestlands and are essential to support the full richness of forest biodiversity.1

Post-fire conditions also serve as a refuge for rare and imperiled wildlife species that depend upon the unique habitat features created by intense fire. These include an abundance of standing dead trees, or "snags," which provide nesting and foraging habitat for woodpeckers and many other plant and wildlife species responsible for the rejuvenation of a forest after fire.

The post-fire environment is rich in patches of native flowering shrubs that replenish soil nitrogen and attract a diverse bounty of beneficial insects that aid in pollination after fire. Small mammals find excellent habitat in the shrubs and downed logs, providing food for foraging spotted owls. Deer and elk browse on post-fire shrubs and natural conifer regeneration. Bears eat and disperse berries and conifer seeds often found in substantial quantities after intense fire, and morel mushrooms, prized by many Americans, spring from ashes in the most severely burned forest patches.

1 See http://store.elsevier.com/The-Ecological-Importance-of-Mixed-Severity-Fires/Dominick-DellaSala/isbn-9780128027493/.

September 2015

This post-fire renewal, known as “complex early seral forest,” or “snag forest,” is quite simply some of the best wildlife habitat in forests, and is an essential stage of natural processes that eventually become old-growth forests over time. This unique habitat is not mimicked by clearcutting, as the legislation incorrectly suggests. Moreover, it is the least protected of all forest habitat types, and is often as rare, or rarer, than old-growth forest, due to extensive fire suppression and damaging forest management practices such as those encouraged by this legislation. Much of the current scientific information on the ecological importance of post-fire habitat can be found in several excellent videos, including ways for the public to co-exist with fires burning safely in the backcountry.1,2

After a fire, the new forest is particularly vulnerable to logging disturbances that can set back the forest renewal process for decades. Post-fire logging has been shown to eliminate habitat for many bird species that depend on snags, compact soils, remove biological legacies (snags and downed logs) that are essential in supporting new forest growth, and spread invasive species that outcompete native vegetation and, in some cases, increase the flammability of the new forest.

While it is often claimed that such logging is needed to restore conifer growth and lower fuel hazards after a fire, many studies

have shown that logging tractors often kill most conifer seedlings and other important re-establishing vegetation and actually increases flammable logging slash left on site. Increased chronic sedimentation to streams due to the extensive road network and runoff from logging on steep slopes degrades aquatic organisms and water quality.3

We urge you to consider what the science is telling us: that post-fire habitats created by fire, including patches of severe fire, are ecological treasures rather than ecological catastrophes, and that post-fire logging does far more harm than good to public forests. We urge Senators to vote against any legislation that weakens or overrides environmental laws to increase post-fire logging or clearcutting of mature forest as degrading to the nation's forest legacy. And, we urge President Obama to veto any such legislation that reaches his desk as inconsistent with science-based forest and climate change planning.

Sincerely (affiliations are listed for identification purposes only),

Dominick A. DellaSala, Ph.D. Chief Scientist

Geos Institute, Ashland, OR

Chad Hanson, Ph.D.

Research Ecologist

Earth Island Institute, Berkeley, CA

2http://www.fs.usda.gov/detail/r5/news-events/audiovisual/?cid=stelprdb5431394;

https://vimeo.com/75533376; http://vimeo.com/groups/future/videos/8627070; http://www.youtube.com/watch?v=iTl-naywNyY&list=PL7F70F134E853F520&index=15; http://www.youtube.com/watch?v=1BmTq8vGAVo&feature=youtu.be; http://vimeo.com/3428311

3Hutto, R. L. 2006. Toward meaningful snag-management guidelines for postfire salvage logging in North American conifer forests. Conservation Biology 20:984-993. Beschta, R.L. et al. 2004. Postfire management on forested public lands of the western USA. Conservation Biology 18:957-967. Lindenmayer, D.B. et al. 2004. Salvage-harvesting policies after natural disturbance. Science 303:1303. Karr, J. et al. 2004. The effects of postfire salvage logging on aquatic ecosystems in the American West. Bioscience 54:1029-1033. DellaSala, D.A., et al. 2006. Post-fire logging debate ignores many issues. Science 314-51-52. Donato, D.C. et al. 2006. Post-wildfire logging hinders regeneration and increases fire risk. Science 311 No. 5759:352.

Reed Noss, Ph.D.

Provost's Distinguished Research Professor Dept. Biology, University Central Florida Orlando, FL

Derek E. Lee, Ph.D.

Principal Scientist, Wild Nature Institute Hanover, NH

Dennis Odion, Ph.D.

Earth Research Institute

Univ. California, Santa Barbara Ashland, OR

Additional signers:

Ronald Abrams, Ph.D. Dru Associates, Inc. Glen Cove, NY

Paul Alaback, Ph.D.

Professor Emeritus of Forest Ecology Univ. of Montana

Missoula, MT

John Alcock, Ph.D. Regents Professor Emeritus Arizona State University Tempe, AZ

Patrick Alexander, Ph.D.

New Mexico State University, Biology Las Cruces, NM

David Allen, Ph.D.

Assistant Professor of Biology Middlebury College Middlebury, VT

Peter Alpert, Ph.D.

Professor

University of Massachusetts, Amherst Amherst, MA

Richard, L. Hutto, Ph.D. University Montana, Div. Biol. Sci. Missoula, MT

Monica L. Bond, M.S.

Principal Scientist, Wild Nature Inst. Hanover, NH

Rick Halsey, M.S.

The California Chaparral Inst. Escondido, CA

William Anderson, Ph.D.

Professor Emeritus

Grice Marine Biological Laboratory Charleston, SC

W. Scott Armbruster, Ph.D. Principal Research Scientist University of Alaska Fairbanks Fairbanks, AK

Peter Auster, Ph.D. Research Professor Emeritus University of Connecticut Groton, CT

Peter Bahls, M.S.

Executive Director, Salmon Biologist Northwest Watershed Institute

Port Townsend, WA

Richard Baker, Ph.D. Professor Emeritus University of Iowa Iowa City, IA

William Baker, Ph.D. Professor Emeritus University of Wyoming Laramie, WY

September 2015

3

Bruce Baldwin, Ph.D.

Professor of Integrative Biology and Curator of the Jepson Herbarium University of California, Berkeley Berkeley, CA

Randy Bangert, Ph.D., Ecologist Cortez, CO

Jesse Barber, Ph.D.

Asst. Professor of Biology Boise State University Boise, ID

Linda Sue Barnes, Ph.D. Prof. Emeritus of Botany Methodist University Wade, NC

Roger Barry, Ph.D.

Distinguished Professor Emeritus

Univ. of Colo., Natl. Snow & Ice Data Ctr. Boulder, CO

Paul Bartelt, Ph.D. Professor of Biology Waldorf College Forest City, IA

Colden Baxter, Ph.D. Stream Ecology Center Idaho State University Pocatello, ID

Elizabeth Beck, M.S. Edmonton, Alberta

Craig Benkman, Ph.D.

Professor of Zoology & Physiology University of Wyoming

Laramie, WY

David Berg, Ph.D. Professor of Biology Miami University Oxford, OH

Robert Beschta, Ph.D.

Em. Prof. of Forest Ecosystems and Society Oregon State University

Corvallis, OR

Richard Bierregaard, Ph.D.

Research Associate

The Acad. of Natural Sci of Drexel Univ. Wynnewood, PA

Harvey Blankespoor, Ph.D. Professor Emeritus of Biology Hope College

Holland, MI

Katherine Bode, M.A.

Senior Botanist

Avila and Assoc. Consulting Engineers Austin, TX

Brian Bodenbender, Ph.D.

Chair, Geological and Env.Sciences Hope College

Holland, MI

Jim Boone, Ph.D.

Senior Scientist

Desert Wildlife Consultants, LLC Las Vegas, NV

Elizabeth Braker, Ph.D. Professor of Biology Occidental College

Los Angeles, CA

John Bremer, MBA

Washington Native Plant Society Bellingham, WA

Holger Brix, Ph.D.

Asst. Researcher

University of California, Los Angeles Los Angeles, CA

September 2015

John Browne

Conservation Committee

WA Native Plant Society (Judd Creek Nursery)

Vashon, WA

Peter Brussard, Ph.D. Professor Emeritus University of Nevada, Reno Reno, NV

Brian Buma, Ph.D. Assistant Professor of Forest Ecosystem Ecology University of Alaska Juneau, AK

Harold Burstyn, Ph.D., J.D. Syracuse, NY

Alan Cady, Ph.D. Professor of Biology Miami University Middletown, OH

Philip Cantino, Ph.D. Emeritus Professor Ohio University Athens, OH

Ken Carloni, Ph.D.

Professor of Biology, Science Dept. Chair Umpqua Community College

Roseburg, OR

Ron Carroll, Ph.D.

Diistinguished Fellow, River Basin Center University of Georgia

Athens, GA

Donna Cassidy-Hanley, Ph.D. Cornell University

Ithaca, NY

Kai Chan, Ph.D.

Assoc. Professor & Canada Research Chair University of British Columbia

Vancouver, BC

F. Stuart Chapin, Ph.D. Professor

University of Alaska Fairbanks Fairbanks, AK

Donald Charles, Ph.D.

Professor

Drexel Univ. Academy of Natural Sciences Huntingdon Valley, PA

Eric Chivian, M.D.

Founder and Former Director

Center for Health and the Global Environment

Harvard Medical School

1985 Nobel Peace Prize, Co-Recipient

John Cigliano, Ph.D. Professor of Biology Cedar Crest College Allentown, PA

Malcolm Cleaveland, Ph.D. Professor Emeritus of Geosciences University of Arkansas Fayetteville, AR

Todd Cornish, DVM, Ph.D., DACVP Director, Wyoming Wildlife University of Wyoming

Laramie, WY

Jennifer Costanza, Ph.D.

North Carolina State University Raleigh, NC

Ericha Courtright, M.S.

Information Technology Specialist USDA Agricultural Research Service Las Cruces, NM

September 2015

5

Patrick Crist, Ph.D.

Director, Conservation Planning NatureServe

Broomfield, CO

Alan Dickman, Ph.D.

Research Assoc. Prof., Biology and Env. University of Oregon

Eugene, OR

Andrew Dobson, D.Phil. Professor, Princeton University Princeton, NJ

Jim Dole, Ph.D.

Professor Emeritus of Biology California State Univ., Northridge Northridge, CA

Frito Dolisca, Ph.D. Orange, NJ

Michael Dorsey, M.S., Ph.D Washington, D.C.

Craig Downer, M.S. Wildlife Ecologist Andean Tapir Fund Minden, NV

Kathleeen Doyle, Ph.D. Environmental Studies Program Middlebury College Middlebury, VT

Ken Driese, Ph.D. Senior Lecturer University of Wyoming Laramie, WY

Marianne Edain

Brushfire Coordinator

Whidbey Environmental Action Network Langley, WA

Richard E. Edelmann, Ph.D. Professor of Biology

Miami University

Oxford, OH

Mark Egger, B.S.

Research Associate

Univ. of Washington Herbarium Seattle, WA

Robert Espinoza, Ph.D.

Professor

California State University, Northridge Northridge, CA

Suzanne Estes, Ph.D. Professor of Biology Portland State University Portland, OR

Gerald Estberg, Ph.D. Emeritus Professor of Physics University of San Diego

Port Angeles, W A

Donald Estberg, M.S. Redmond, W A

Daniel Evans, Ph.D.

Science Policy Fellow

American Assn. for Advancement of Science

Washington, DC

Jonathan Evans, Ph.D. Professor of Biology University of the South Sewanee, TN

Philip Fischer, M.S. University of Idaho Moscow, ID

September 2015

Daniel Fisher, Ph.D. Professor

University of Michigan Ann Arbor, MI

Thomas Fleischner, Ph.D.

Director, Natural History Institute, Professor Prescott College

Prescott, AZ

Johannes Foufopoulos, Ph.D. Associate Professor University of Michigan

Ann Arbor, MI

Lee Frelich, Ph.D.

Director, Center for Forest Ecology University of Minnesota

St. Paul, MN

Jerry Freilich, Ph.D. Research Coordinator Olympic National Park Port Angeles, WA

Jennifer Frey, Ph.D. Associate Professor

New Mexico State University Las Cruces, NM

Christopher Frissell, Ph.D.

Affiliate Research Professor

Flathead Lake Biol. Stn., Univ. of Montana Polson, MT

Robert Fuerstenberg, M.S. Ecologist (retired) Vashon, WA

Stephen Fuller, Ph.D.

Professor Emeritus of Biological Sciences University of Mary Washington Fredericksburg, VA

Jim Furnish, Consulting Forester

Former Deputy Chief, U.S. Forest Service Rockville, MD

Donald Geiger, Ph.D. Professor Emeritus University of Dayton Dayton, OH

Charlotte Germain-Aubrey, Ph.D. University of Florida

Gainesville, FL

John Gerwin, M.S.

Research Curator, Ornithology

N. Carolina Museum of Natural Sciences Raleigh, NC

Thomas Giesen, M.S. University of Oregon (retired) Eugene, OR

Jeffrey Gerwing, Ph.D.

Associate Professor

Environmental Science and Management Portland State University

Portland, OR

Barrie Gilbert, Ph.D.

Senior Scientist

Utah State University (retired) Logan, UT

Rachel Golden, M.S. Ph.D. student

George Mason University Silver Spring, MD

Robert Good, M.S., DVM USDA/APHIS (retired) Chester, MD

James Graves, Ph.D. Professor of Biology Green Mountain College Poultney, VT

September 2015

Steven Green, Ph.D.

Senior Professor of Biology University of Miami

Coral Gables, FL

Gregory Grether, Ph.D.

Prof. of Ecology and Evolutionary Biology University of California, Los Angeles Topanga, CA

Simon Gunner, M.S.

Field Botanist

Olofson Environmental, Inc. Berkeley, CA

Dom Hardin, Ph.D.

President

Suksdorfia Chap. / WA Native Plant Society White Salmon, WA

Stacey Harmer, Ph.D. Professor

University of California, Davis Davis, CA

Mark Harmon, Ph.D.

Richardson Chair and Professor

Oregon State University, Forest Science Corvallis, OR

Alan Heath, Ph.D. Professor Emeritus, Biology Virginia Tech.

Blacksburg, VA

Kenneth Helms, Ph.D.

Research Assistant Professor

Dept. of Biology, University of Vermont Burlington, VT

Nancy Hoalst-Pullen, Ph.D. Professor of Geography Kennesaw State University Kennesaw, GA

Håkon Holien, Ph.D.

Associate professor Nord-Trøndelag University College Steinkjer, Norway

Karen Holl, Ph.D.

Professor of Environmental Studies University of California, Santa Cruz Santa Cruz, CA

Richard Holmes, Ph.D.

Harris Professor of Env. Biology, Emeritus Dartmouth College

Hanover, NH

Andres Holz, Ph.D. Assistant Professor Portland State University Portland, OR

Elizabeth Horvath, M.S. Associate Professor of Biology Westmont College

Santa Barbara, CA

Malcolm Hunter, Ph.D.

Libra Professor of Conservation Biology University of Maine

Amherst, ME

Timothy Ingalsbee, Ph.D.

Executive Director

Firefighters United for Safety, Ethics, and

Ecology Eugene, OR

Mrill Ingram, Ph.D. Independent Scholar University of Arizona Madison, WI

David Inouye, Ph.D. Professor of Biology University of Maryland College Park, MD

September 2015

David Janos, Ph.D.

Professor of Biology, Cooper Fellow University of Miami

Coral Gables, FL

Karl Jarvis, M.S.

Ph.D. Candidate

Northern Arizona Univ. School of Forestry Flagstaff, AZ

Mitchell Johns, Ph.D. Professor of Soil Science California State University Chico, CA

Jay Jones, Ph.D.

Professor of Biology and Biochemistry University of La Verne

La Verne, CA

Alan Journet, Ph.D.

Prof. Emeritus, Biology/Env. Science Southeast Missouri State University, Cape Girardeau

Jacksonville, OR

Walter Judd, Ph.D.

Professor of Biology

University of Florida, Dept. Biology Gainesville, FL

Jacob Kann, Ph.D. Aquatic Ecologist Ashland, OR

James Karr, Ph.D. Professor Emeritus University of Washington Sequim, WA

Cheryl Kassed, Ph.D.

Former Vice-President

Maryland Alliance for Greenway Improvement and Conservation Silver Spring, MD

Jason Koontz, Ph.D.

Associate Professor and Chair of Biology Augustana College

Rock Island, IL

Marni Koopman, Ph.D. Climate Change Scientist Geos Institute

Ashland, OR

Sunil Kumar, Ph.D.

Research Scientist

Natural Resource Energy Lab Fort Collins, CO

Giar-Ann Kung, Entomologist

Natural History Museum of Los Angeles County

Los Angeles, CA

Steve LaDochy, Ph.D. Professor of Geography California State Univ., L.A. Los Angeles, CA

Rick Landenberger, Ph.D. Assistant Professor

West Virginia University Morgantown, WV

Marc Lapin, Ph.D. Consulting Ecologist Middlebury College Middlebury, VT

Geoff Lawrence, M.S.

Lecturer in Physics and Chemistry N. Hennepen Community College Minneapolis, MN

Richard Lee, Ph.D.

University Distinguished Professor Miami University

Oxford, OH

Scott Lefler, Ph.D. Principal Lecturer Arizona State University Tempe, AZ

Jason A. Lillegraven, Ph.D. Arts & Sciences Distinguished Emeritus Professor

University of Wyoming Laramie, WY

Jay Lininger, M.S.

Senior Scientist

Center for Biological Diversity Ashland, OR

Frank Logiudice, M.S. Instructor

University of Central Florida Orlando, FL

Teresa Lorenz, Ph.D. Department of Fish and Wildlife University of Idaho

Moscow, ID

Kathryn Lowrey, Ph.D.

Natural Science & Math Division Chair Jefferson Community & Technical College Louisville, KY

Calvin Maginel, M.S. University of Missouri Columbia, MO

Luis Malaret, Ph.D.

Professor

Community College of Rhode Island Worcester, MA

James Marden, Ph.D. Professor of Biology Penn State University University Park, PA

Michael Marsh, Ph.D. Conservation Committee Washington Native Plant Society Seattle, WA

Travis Marsico, Ph.D.

Associate Professor and Associate Chair Arkansas State University

Jonesboro, AR

Patrick Martin, Ph.D.

Associate Professor of Landscape Ecology Colorado State University

Fort Collins, CO

John Marzluff, Ph.D. Professor of Wildlife Science University of Washington Seattle, WA

Gina Massoni, M.S. Seattle, WA

Glenn Matlack, Ph.D.

Associate Professor, Forest Ecology Ohio University

Athens, OH

Kathleen McCarthy, M.S. Ecologist

New York, NY

Carl McDaniel, Ph.D.

Professor Emeritus, Visiting Professor Oberlin College, Rensselaer Polytechnic Institute

Oberlin, OH

Aleta McKeage, M.S.

Plant Ecologist

GreenWays Center for Environment and Community

Belfast, ME

Robert Meese, Ph.D.

Staff Research Associate IV University of California, Davis Davis, CA

Gary Meffe, Ph.D. Adjunct Professor, Retired University of Florida Gainesville, FL

Vicky Meretsky, Ph.D. Professor

Indiana University Bloomington, IN

Julie Messier, M.S. University of Arizona Tucson, AZ

John Morse, Ph.D. Professor Emeritus Clemson University Clemson, SC

Ellen Moyer, Ph.D., P.E. Greenvironment, L.L.C. Montgomery, MA

Peter Moyle, Ph.D. Distinguished Professor University of California, Davis Davis, CA

Nancy Muleady-Mecham, Ph.D. Adjunct Professor of Biology Northern Arizona University Arnold, CA

Dennis Murphy, Ph.D. Research Professor University of Nevada, Reno Reno, NV

K. Murray, Ph.D. Professor of Biology Hope College Holland, MI

Philip Myers, Ph.D. Professor Emeritus University of Michigan Ann Arbor, MI

Charles R. Neal, B.S. Ecologist

U.S. Dept. of Interior (retired) Cody, WY

Andrew Nelson, Ph.D.

Professor Emeitus of Biological Sciences SUNY Oswego

Oswego, NY

Gerald Niemi, Ph.D.

Professor

Natural Resources Research Institute Duluth, MN

Barry Noon, Ph.D.

Professor of Wildlife Ecology Colorado State University Fort Collins, CO

Gretchen North, Ph.D. Professor of Biology Occidental College Los Angeles, CA

Richard Nyhof, Ph.D. Professor of Biology Calvin College Grand Rapids, MI

David Olson, Ph.D. Conservation Biologist Conservation Earth Consulting Los Angeles, CA

Theodore Papenfuss, Ph.D. Research Scientist

Museum of Vertebrate Zoology University of California, Berkeley Berkeley, CA

Michael Parker, Ph.D.

Professor and Chair, Dept. of Biology Southern Oregon University

Ashland, OR

Geoffrey Patton, Ph.D.

Former President

Maryland Alliance for Greenway Improvement and Conservation Silver Spring, MD

Stuart Pimm, Ph.D.

Doris Duke Chair of Conservation Duke University

Durham, NC

Ralph Powell, Ph.D.

Faculty Emeritus

Eastern Michigan University Ann Arbor, MI

Jessica Pratt, M.S., Ecologist University of California, Irvine Irvine, CA

Riley Pratt, Ph.D. Restoration Ecologist Irvine Ranch Conservancy Irvine, CA

Thomas Power, Ph.D. Professor Emeritus University of Montana Missoula, MT

Robert Pyle, Ph.D. Founder

Xerces Society Gray's River, WA

Gurcharan Rahi, Ph.D. Professor

Fayetteville State University Fayetteville, NC

Eric Rechel, Ph.D. Adjunct Professor Colorado Mesa University Grand Junction, CO

Michael Reed, Ph.D. Professor of Biology Tufts University Medford, MA

Pauline Reetz, M.S.

Conservation Chairman

Audubon Society of Greater Denver Denver, CO

Barbara Reynolds, Ph.D.

Professor of Environmental Studies Univ. of North Carolina, Asheville Asheville, NC

Tina Rhea, M.S. Greenbelt, MD

Ann Rhoads, Ph.D.

Senior Botanist, retired

Univ. of Pennsylvania, Morris Arboretum Philadelphia, PA

Fred M. Rhoades, Ph.D.

Instructor of Biology and Mycology Western Washington University (retired) Bellingham, WA

Jon Rhodes, M.S. Hydrologist

Planeto Azul Hydrology Portland, OR

Jennifer Riddell, Ph.D.

Science and Technology Policy Fellow Amer. Assn. for Advancement of Science Ukiah, CA

John Robinson, Ph.D.

Chief Conservation Officer Wildlife Conservation Society Bronx, NY

Garry Rogers, Ph.D.

President

Agua Fria Open Space Alliance, Inc. Dewey-Humboldt, AZ

Steven Rogstad, Ph.D. Professor of Biology University of Cincinnati Cincinnati, OH

Thomas Rooney, Ph.D.

Associate Professor of Biological Sciences Wright State University

Dayton, OH

Jon Rosales, Ph.D. Associate Professor

St. Lawrence University Canton, NY

John Rosenfeld, Ph.D. Geological Society of America Los Angeles, CA

Michael Ross, Ph.D.

Assoc. Prof. of Environmental Studies Florida International University Miami, FL

Eric Routman, Ph.D. Professor of Biology

San Francisco State University San Francisco, CA

Barbara Roy, Ph.D. Professor of Ecology University of Oregon Eugene, OR

Edwin Royce, Ph.D., Associate Department of Plant Sciences University of California, Davis Davis, CA

Matthew Rubino, M.S.

Conservation Biologist

NC State Univ. Dept. of Applied Ecology Raleigh, NC

Scott Russell, Ph.D.

George Lynn Cross Research Professor University of Oklahoma

Norman, OK

Nicanor Saliendra, Ph.D. Ecologist

American Geophysical Union Mandan, ND

Robin Salter, Ph.D. Associate Professor Oberlin College Oberlin, OH

Scott Samuels, Ph.D. Professor of Biology University of Montana Missoula, MT

Melissa Savage, Ph.D.

Assoc. Professor Emerita of Geography University of California, Los Angeles Los Angeles, CA

Paul Schaeffer, Ph.D. Associate Professor Miami University Oxford, OH

Paula Schiffman, Ph.D.

Professor of Biology

California State Univ., Northridge Los Angeles, CA

Joseph Schiller, Ph.D. Professor

Austin Peay State University Clarksville, TN

Fiona Schmiegelow, Ph.D.

Professor and Program Director University of Alberta/Yukon College Whitehorse, Yukon

Karl Schneider, M.S.

Research and Mgmt. Coordinator Alaska Dept. of Fish and Game (ret.) Fritz Creek, AK

Kate Schoeneker, Ph.D.

Ecologist

USGS and Colorado State Univeristy Fort Collins, CO

Fred Schreiber, Ph.D.

Emeritus Professor of Biology California State University, Fresno Fresno, CA

Brant Schumaker, DVM, MPVM, Ph.D. Laramie, WY

Kathy Schwager, M.S. Ecologist

Yaphank, NY

Mark Shapley, Ph.D. Research Assistant Professor Idaho State University Pocatello, ID

Rosemary Sherriff, Ph.D.

Associate Professor, Dept. of Geography Humboldt State University

Arcata, CA

Thomas W. Sherry, Ph.D. Professor

American Ornithologists' Union New Orleans, LA

Steve Shippee, Ph.D. Conservation Biologist

Marine Wildlife Response, LLC Mary Esther, FL

Rodney Siegel, Ph.D.

Executive Director

The Institute for Bird Populations Point Reyes Station, CA

Ann Sloat, Ph.D. University of Hawaii Oahu, HI

Ben Solvesky, M.S. Wildlife Ecologist Sierra Forest Legacy Placerville, CA

Michael Soule, Ph.D. Professor Emeritus UC Santa Cruz Paonia, CO

Wayne Spencer, Ph.D.

Director of Conservation Assessment Conservation Biology Institute

San Diego, CA

Timothy Spira, Ph.D. Professor Emeritus Clemson University Clemson, SC

Peter Stacey, Ph.D. Research Professor University of New Mexico Albuquerque, NM

Alan Stemler, Ph.D.

Professor Emeritus

University of California, Davis Davis, CA

Christopher Still, Ph.D.

Associate Professor of Geography University of California, Santa Barbara Santa Barbara, CA

Michael Swift, Ph.D. Assistant Professor St. Olaf College Northfield, MN

Alexandra Syphard, Ph.D. Senior Research Ecologist Conservation Biology Institute Corvallis, OR

Andrew Szasz, Ph.D.

Professor of Environmental Studies University of California, Santa Cruz Santa Cruz, CA

Gary Tabor, M.S., VMD

Executive Director

Center for Large Landscape Conservation Bozeman, MT

John Taylor, Ph.D.

Professor of Plant and Microbial Biology University of California, Berkeley Berkeley, CA

Stephen Tettelbach, Ph.D. Professor of Biology

Long Island University, Post Brookville, NY

Morgan Tingley, Ph.D. Wildlife Biologist University of Connecticut Storrs, CT

Vicki Tripoli, Ph.D. Environmental Scientist Â Retired

Moorpark, CA

Julie Tuttle, M.S.

Ph.D. Candidate

Univ. of N. Carolina, Chapel Hill, & Duke Chapel Hill, NC

Anna Tyler, Ph.D. Research Fellow Jackson Laboratory Bar Harbor, ME

James Valentine, Ph.D.

Professor of Integrative Biology, Emeritus Univ. of California, Berkeley

Berkeley, CA

Pete Van Hoorn, M.S. Range Ecologist Livermore, CA

Mike Vandeman, Ph.D. San Ramon, CA

Thomas Veblen, Ph.D. Professor

University of Colorado Boulder, CO

John Vickery, M.S. Natural Areas Specialist Denver Natural Areas Denver, CO

Marlene Wagner, M.S. Ph.D. Candidate

Simon Fraser University Petersburg, AK

David Wake, Ph.D.

Professor of Integrative Biology University of California, Berkeley Berkeley, CA

Donald Waller, Ph.D.

J.T. Curtis Professor, Dept. of Botany University of Wisconsin

Madison, WI

Glenn Walsberg, Ph.D.

Professor Emeritus of Life Science Arizona State University

Tempe, AZ

Denis Wang, Ph.D.

Research Ecologist and Educator, retired Northport, ME

Gerald Wasserburg, Ph.D.

MacArthur Prof. of Geology/Geophysics California Institute of Technology Pasadena, CA

Vicki Watson, Ph.D.

Professor of Environmental Studies University of Montana

Missoula, MT

Frank Wegscheider, M.A.

Wildlife Biologist

California State University Fullerton Placentia, CA

Judith Weis, Ph.D.

Professor of Biological Sciences Rutgers University

Newark, NJ

John Weishampel, Ph.D. Professor of Biology University of Central Florida Orlando, FL

Hart Welsh, Ph.D.

Research Wildlife Ecologist USDA Forest Service Arcata, CA

Janet Westbrook, M.A. Professor Emeritus of Biology Cerro Coso College Ridgecrest, CA

David Whitacre, Ph.D.

Instructor

Treasure Valley Math and Science Center Boise, ID

Edward Whitesell, Ph.D. Member of the Faculty

The Evergreen State College Olympia, WA

Cathy Whitlock, Ph.D.

Professor of Earth Sciences

Co-Director, MT Institute on Ecosystems Montana State University

Bozeman, MT

James Williams, Ph.D. Fisheries Biologist

U.S. Dept. of Interior (ret.) Gainesville, FL

Norris Williams, Ph.D. Curator, University of Florida Gainesville, FL

Edward O. Wilson, Ph.D. Professor, Harvard University Museum of Comparative Zoology Cambridge, MA

Colleen Wisinski, M.S. Senior Research Technician

San Diego Zoo, Institute for Conservation Research

Poway, CA

Shaye Wolf, Ph.D.

Climate Science Director Center for Biological Diversity Oakland, CA

Marianna Wood, Ph.D. Associate Professor of Biology
Bloomsburg University Bloomsburg, PA

George Wuerthner, M.S.

Sr. Scientist and Ecological Projects Director

Foundation for Deep Ecology Bend, OR

Charlotte Zampini, Ph.D. Emeritas Professor Framingham State University Framingham, MA

Veblen (2003) questions the premises the FS often puts forth to justify "uncharacteristic vegetation patterns" discussions, that being to take management activities to alter vegetation patterns in response to fire suppression:

> The premise behind many projects aimed at wildfire hazard reduction and ecological restoration in forests of the western United States is the idea that unnatural fuel buildup has resulted from suppression of formerly frequent fires. This premise and its implications need to be critically evaluated by conducting area-specific research in the forest ecosystems targeted for fuels or ecological restoration

projects. Fire regime researchers need to acknowledge the limitations of fire history methodology and avoid over-reliance on summary fire statistics such as mean fire interval and rotation period. While fire regime research is vitally important for informing decisions in the areas of wildfire hazard mitigation and ecological restoration, there is much need for improving the way researchers communicate their results to managers and the way managers use this information.

Remedy

Choose the No Action Alternative or withdraw the draft decision and write an EIS that fully complies with the law.

We wrote in our comments:

Please analyze the cumulative impacts of this project on grizzly bears, lynx, lynx critical habitat, wolverine, monarch butterflies, goshawks, and wildlife in the Tally Lake Ranger District

How will the decreased elk security and thermal cover affect wolverines? Please formally consult with the US FWS on the impact of this project on wolverines. Wolverines need secure habitat in big game winter range.

The Forest Service responded:

Wildlife habitat was a major consideration throughout the project planning process. Affects to wildlife are documented in the updated EA in species-specific sections on pages 59-81. Additional information is available in the project file and available upon request.

There is no modeled primary, or maternal habitat within the project area. There is 9,725 acres female dispersal habitat but much of the project area is not modeled female habitat (18,573 acres) (project file exhibit Q-10). There are 3,413 acres of proposed treatment with modeled female dispersal habitat. Land management activities (principally timber harvest, wildland firefighting, prescribed fire, and silviculture) can modify wolverine habitat; however, the wolverine is a generalist species that appears to be little affected by changes to the vegetative characteristics of its habitat (U.S. Department of the Interior 2013). Effects would be minimal to wolverine. Other actions including the recreation improvements, road, and culvert work, and BMPs would have negligible effect on wolverine.

- ***The project is not likely to jeopardize the continued existence of the wolverine Distinct Population Segment.***

Consultation with the U.S. Fish and Wildlife Service for all proposed species, listed species and their critical habitat will be completed on the project activities before the decision for the Round Star Project is finalized.

The project is in violation of the ESA, NFMA, NEPA and the APA. Consultation or conferencing must be completed so the public can comment on it.

REMEDY

Choose the No Action Alternative or withdraw the draft decision and write an EIS that fully complies with the law.

We wrote in our comments:

Which wildlife species and ecosystem processes, if any, does the fire-proofing in the proposed project benefit? Which species and processes do fire-proofing harm?

What is your definition of healthier?

What evidence do you have that this logging will make the forest healthier for fish and wildlife? What about the role of

mixed severity and high severity fire – what are the bene- fits of those natural processes?

How have those processes (mixed and high severity fire) created the ecosystems we have today?

Over how many millennia have mixed and high severity fire have been occurring with- out human intervention?

What beneficial ecological roles do beetles play? You didn't answer this in violation of NEPA, NFMA and the APA.

Can the forest survive without beetles?

Will all WQLS streams in the project area have completed TMDLs before a decision is signed?

Will this project leave enough snags to follow the Forest Plan requirements and the requirements of sensitive old growth species such as flammulated owls and goshawks?

Will this Project exacerbate existing noxious weed infestations and start new infestations?

Do unlogged old growth forests store more carbon than the wood products that would be removed from the same forest in a logging operation?

What is the cumulative effect of National Forest logging on U.S. carbon stores? How many acres of National Forest lands are logged every year? How much carbon is lost by that logging?

Is this Project consistent with "research recommendations (Krankina and Harmon 2006) for protecting carbon gains against the potential impacts of future climate change? That study recommends "[i]ncreasing or maintain- ing the forest area by avoiding deforestation," and states that "protecting forest from logging or clearing offer immediate benefits via pre- vented emissions."

Please list each visual quality standard that applies to each unit and disclose whether each unit meets its respective visual quality standard.

Please disclose whether you have conducted surveys in the Project area for this Project for whitebark pine, Monarch butterflies, wolverines, grizzly bears, pine martins, northern goshawk and lynx, as required by the Forest Plan.

Please disclose the last time the Project area was surveyed for whitebark pine, Monarch butterflies, grizzly bears, wolverines, pine martins, northern goshawk, and lynx.

Please disclose how often the Project area has been surveyed for whitebark pine, wolverines, Monarch butterflies, grizzly bears, pine martins, northern goshawks, and lynx.

Would the habitat be better for whitebark pine, Monarch butterflies, grizzly bears, wolverines, pine martins, northern goshawks, and lynx if roads were removed in the Project area?

Please provide us with the full BA for the whitebark pine, Monarch butterflies, grizzly bears, wolverines, pine martins, northern goshawks, and lynx.

Please formally consult with the U.S. Fish and Wildlife Service on the impact of the project on bull trout, bull trout critical habitat, whitebark pine, Monarch butterflies, grizzly bears, wolverines, pine martins, northern goshawks, lynx critical habitat, and lynx.

The Forest Service responded:

- ***The project is not likely to jeopardize the continued existence of the wolverine Distinct Population Segment. Consultation with the U.S. Fish and Wildlife Service for all proposed species, listed species and their critical habitat will be completed on the project activities before the decision for the Round Star Project is finalized.***

Other than this, the Forest Service did not respond to our comments in violation of NEPA and the APA.

REMEDY

Choose the No Action Alternative or withdraw the draft decision and write an EIS that fully complies with the law.

We wrote in our comments:

In Case 9:19-cv-0056-DWM the United States District Court for the District of Montana ruled on 6/24/21 that the Flathead Forest Plan was illegal because the Fish and Wildlife Service violated the ESA by not considering the impacts of ineffective road closures in its 2017 BiOp. The court also ruled that the FWS violated the ESA by using a flawed incidental take statement for grizzly bears and the core density standards and secure core habitat surrogate violate the ESA.

The Revised Forest Plan and the Round Star project weakens grizzly bear habitat protections by allowing new roadbuilding throughout the Flathead National Forest, without meaningful and permanent reclamation of other roads elsewhere in the Forest to compensate for the new road construction. This new management direction is a significant departure from former Forest Plan Amendment 19, which required the Forest Service to reclaim roads according to stringent requirements such that a reclaimed road would "no longer function as a road or trail." Amendment 19 EA.

The New roadbuilding in the Round Star project without meaningful reclamation to ensure no net increase in the road system presents a significant threat to grizzly bears, because motor vehicle users and other recreationists can trespass on the supposedly "impassable" roads and thus encroach on grizzly bear habitat. Further, even unused roads cause detrimental impacts to grizzly bear survival and reproduction, because grizzly bears are displaced from roaded habitat,

regardless of whether the roads receive public or administrative use. However, in concluding that the Revised Forest Plan will not jeopardize the species, FWS's Revised Biological Opinion failed to adequately examine adverse impacts to grizzly bears from unauthorized motorized use on roads closed according to the Revised Forest Plan's weaker closure standards; failed to consider the displacement impacts caused by roads even when they do not receive motorized use; and failed to account for increased roadbuilding enabled by the Forest Service's abandonment of stringent road-reclamation requirements.

The Forest Service has failed to rationally determine, based on a consideration of all relevant factors, whether the Revised Forest Plan's new management direction will jeopardize the survival of grizzly bears in the Flathead and therefore the Round Star project.

The FWS's Revised Biological Opinion is therefore arbitrary, capricious, and not in accordance with law, and should be set aside pursuant to the ESA and APA and therefore can not be used as a basis for the Round Star project.

We also wrote in our comments:

How many road closure violations have been found in the Tally Lake Ranger District in the last 5 years?

In Case 9:19-cv-0056-DWM the United States District Court for the District of Montana ruled on 6/24/21 that the Flathead Forest Plan was illegal because the Fish and Wildlife Service violated the ESA by not considering the impacts of ineffective

road closures in its 2017 BiOp. The court also ruled that the FWS violated the ESA by using a flawed incidental take statement for grizzly bears and the core density standards and secure core habitat surrogate violate the ESA.

It is fair to assume that there are many more violations that regularly occur and are not witnessed and reported. It is also fair to assume that you have made no effort to request this available information from your own law enforcement officers, much less incorporate it into your analysis. Considering your own admissions that road density is the primary factor that degrades elk and grizzly habitat, this is a material and significant omission from your analysis– all of your ORD and HE calculations are wrong without this information.

The veracity of the FS's inventory of system and nonsystem ("undetermined" or "unauthorized") roads is at issue here also. This is partly because the FS basically turns a blind eye to the situation with insufficient commitment to monitoring, and also because violations are not always remedied in a timely manner.

The Round Star project would violate the Forest Plan/Access standards, a violation of NFMA because of road closure violations.

Please disclose how many years the existing core ares have provided the habitat benefits assumed under the Forest Plan.

As pointed out, some has been lost (due to "private infrastructure development") and we're not told of other likely and forseeable reductions.

Please take a hard look as road closure violations.

Additionally, your emphasis on elk populations across entire hunting districts is disingenuous and has little relevance to whether you are meeting your Forest Plan obligations to maintain sufficient elk habitat onNational

Forest lands. As you note, the Forest Plan estimated that 70% of elk were taken on National Forest lands in 1986. What percentage of elk are currently taken on National Forest lands?

Have you asked Montana FWP for this information? Any honest biologist would admit that high elk population numbers do not indicate that you are appropriately managing National Forest elk habitat; to the contrary, high elk numbers indicate that you are so poorly managing elk habitat on National Forest lands that elk are being displaced to private lands where hunting is limited or prohibited. Your own Forest Service guidance document, Christensen et al 1993 states:

"Reducing habitat effectiveness should never be considered as a means of controlling elk populations."

What is the existing condition of linear motorized route density on National Forest System lands in the action area and what would it increase to during implementation.

Do your open road density calculations include the "non-system" i.e. illegal roads in the Project area?

Do your open road density calculations include all of the recurring illegal road use documented in your own law enforcement incident reports?

Has the FNF closed or obliterated all roads that were promised to be closed or obliterated in the your Travel Plans in the Tally Lake Ranger District? Or, are you still waiting for funds to close or obliterate those roads? This distinction matters because you cannot honestly claim that you are meeting road density standards promised by the Travel Plan if you have not yet completed the road closures/obliterations promised by the Travel Plan. Furthermore, as noted above, you have a major problem with recurring, chronic violations of the road closures created by the Travel Plan, which means that your assumptions in the Travel Plan that all closures would be

effective has proven false. For this reason, you cannot tier to the analysis in the Travel Plan because it is invalid. You must either complete new NEPA analysis for the Travel Plan on this issue or provide that new analysis in the NEPA analysis for this Project. Either way, you must update your open road density calculations to include all roads receiving illegal use.

Christensen et al (1993) states: "Any motorized vehicle use on roads will reduce habitat effectiveness. Recognize and deal with all forms of motorized vehicles and all uses, including administrative use." Please disclose this to the public and stop representing that roads closed to thepublic should not be included in habitat effectiveness calculations. The facts that (a) you are constructing or reconstructing over 40 miles of road for this project, (b) you have problems with recurring illegal use, and (c) you already admit that you found another 25 miles of illegal roads in the project area that you have not committed to obliterating, means that your conclusion that this Project will have no effect on open road density or habitat effectiveness is implausible to the point of being disingenuous. You cannot exclude these roads simply because you say they are closed to the public. Every road receiving motorized use must be included in the HE calculation. You must consider all

of this road use in order to take a hard look that is fully and fairly informed regarding habitat effectiveness. In thevery least you must add in all "non-system" roads, i.e. illegal roads, as well as recurring illegal road use (violations) in your ORD calculations. Also, as a side note, your calculations in

Christensen et al 1993 finds: "Areas where habitat effectiveness is retained at lower than 50 percent must be recognized as making only minor contributions to elk management goals. If habitat effectiveness is notimportant, don't fake it. Just admit up front that elk are not a consideration."

Will the project comply with Forest Plan Management Area C Goal states: "Maintain or enhance existing elk habitat by maximizing habitat effectiveness as a primary management objective. Emphasis will also be directed toward management of indigenous wildlife species. Commodity resource management will be practiced where it is compatible with these wildlife management objectives." Also – MA C Standard: "Habitat effectiveness will be positively managed through road management and other necessary controls on resource activities." Also – "Elk habitat effectiveness will be

maintained." Please demonstrate that the project will comply with all of these provisions for all of the above-stated reasons.

Creating barriers on roads to prevent motorized access will not affect recreational use, including hiking, hunting, bike riding, and berry picking, for example, Where are these impacts to grizzly bear displacement and mortality risk addressed?

The agency failed to define total road densities at present, what these will be during the 5 years of project implementation, and what these will be once the project is completed. So the impacts to grizzly bear displacement and mortality risk are not identified to the public.

In Case 9:19-cv-0056-DWM the United States District Court for the District of Montana ruled on 6/24/21 that the Flathead Forest Plan was illegal because the Fish and Wildlife Service violated the ESA by not considering the impacts of ineffective road closures in its 2017 BiOp. The court also ruled that the FWS violated the ESA by using a flawed incidental take statement for grizzly bears and the core density standards and secure core habitat surrogate violate the ESA.

The Revised Forest Plan and the Round Star project weakens grizzly bear habitat protections by allowing new roadbuilding throughout the Flathead National Forest, without meaningful and permanent reclamation of other roads elsewhere in the Forest to compensate for the new road construction. This new management direction is a significant departure from former

Forest Plan Amendment 19, which required the Forest Service to reclaim roads according to stringent requirements such that a reclaimed road would "no longer function as a road or trail." Amendment 19 EA.

The New roadbuilding in the Round Star project without meaningful reclamation to ensure no net increase in the road system presents a significant threat to grizzly bears, because motor vehicle users and other recreationists can trespass on the supposedly "impassable" roads and thus encroach on grizzly bear habitat. Further, even unused roads cause detrimental impacts to grizzly bear survival and reproduction, because grizzly bears are displaced from roaded habitat, regardless of whether the roads receive public or administrative use. However, in concluding that the Revised Forest Plan will not jeopardize the species, FWS's Revised Biological Opinion failed to adequately examine adverse impacts to grizzly bears from unauthorized motorized use on roads closed according to the Revised Forest Plan's weaker closure standards; failed to consider the displacement impacts caused by roads even when they do not receive motorized use; and failed to account for increased roadbuilding enabled by the Forest Service's abandonment of stringent road-reclamation requirements.

The Forest Service has failed to rationally determine, based on a consideration of all relevant factors, whether the Revised Forest Plan's new management direction will jeopardize the survival of grizzly bears in the Flathead and therefore the Round Star project.

The FWS's Revised Biological Opinion is therefore arbitrary, capricious, and not in accordance with law, and should be set aside pursuant to the ESA and APA and therefore can not be used as a basis for the Round Star Project.

Please disclose if the project is meeting:

(1) Forest Plan Standard 3 - Hiding Cover,

(2) Forest Plan Standard 3 - Thermal Cover,

(3) Forest Plan Standard 4a - Open Road

Density & Hiding Cover,

(4) Habitat Effectiveness,

(5) Hillis Elk Security at Elk Herd Unit level (i.e., including all lands), and

(6) Hillis-derived Elk Security at Elk Analysis Unit level (i.e., lands within National Forest boundary).

MT FWP has informed the Forest Service that total number of elk is not a correct measure of whether or not adequate secure big game habitat is available on Forest Service lands: "This is inappropriate because the correct measures of big game security are annual bull survival rates and the degree to which big game are retained on public land during the fall hunting season."

Please disclose or address the displacement of elk from public land to private land during hunting season due to inadequate security habitat on National Forests.

FWP recommends that land managers provide enough secure habitat during fall to meet annual bull survival objectives while maintaining general bull harvest opportunity. . . .

In contrast, the number of elk that spend the majority of the year on some nearby private lands has increased dramatically between 1986 and 2013.

Has MT FWP urged the Flathead National Forestto increase functional fall habitat security on the Tally Lake Ranger District?

Please demonstrated compliance with the Montana Elk-Logging Study Recommendation for Road Management. The Road Management requirement states: "Where maintenance of elk habitat quality and security is an important consideration, open road densities should be held to a low level, and every open road should be carefully evaluated to determine the possible consequences for elk." To not do so is a violation of NEPA,NFMA, and the APA.

Are you planning on issuing any amendments to the Forest Plan for this project. If so what?

Montana FWP has indicated that there is a serious problem with elk being displaced from insecure National Forest lands onto private land during hunting season. Repeatedly exempting logging and roading projects from the only quantitative limits on logging and roading on this National Forest exacerbates this elk displacement problem and (a) results in a failure to comply with Forest Plan objectives and

goals to maintain elk habitat andhunter opportunity, (b) results in a major change to standards and guidelines intended to maintain elk habitat and hunter opportunity, (c)significantly limits hunter opportunity on this Forest, and (d) affects a large portion of this National Forest that is reasonably available to the public for hunting.

For these reasons, the Forest Service's practice of routinely exempting projects from Standards 3 and 4a amounts to a significant change to the Forest Plan, which requires analysis under 36 C.F.R. §219.10 (f) and 36 C.F.R. §219.12.

The Forest Service responded:

Forest plan direction for management of grizzly bear and road density is beyond the scope of this project. Project compliance with forest plan components related to road density is displayed in the forest plan consistency document (project file exhibit R-1). The Round Star Project would be compliant with GA-SM-STD-01. The existing road density within the project area and effects of the proposed action are discussed on pages 71-73 respectively. Road closure effectiveness is monitored in the area, and closures are generally found to be effective (project file exhibit Q-14 & Q-25). Section 7 consultation with USFWS will be completed before the decision for the project is finalized.

The preservation of endangered species takes "priority over the 'primary missions' of federal agencies." Accordingly, courts must "afford[] endangered species the highest of priorities," and act with "institutionalized caution" when reviewing ESA cases. Cottonwood Envtl. Law Ctr. v. USFS, 789 F.3d 1075, 1091 (9th Cir.2015). This Court holds that the "fundamental principle [of institutionalized caution] remains intact and will continue to guide district courts when confronted with requests for injunctive relief in ESA cases." Id. Although the district court did not apply this fundamental principle in this case, this Court may now remedy that error by issuing a temporary injunction pending appeal to preserve the status quo until a final decision is issued on the merits.

Measures implemented beginning in the 1990s for protection of the threatened grizzly bear have decreased the amount of road available for motorized public travel and management activities, while increasing security for grizzly bears as well as other wildlife species.

The well-established scientific consensus is that roads pose the most imminent risk to this grizzly population. Ninety percent of this population's Recovery Zone habitat is located on public National Forest lands. Thus, the federal government has the power to limit road density for grizzly bear protection on the vast majority of its habitat and thereby prevent the extinction of this grizzly population.

However, the U.S. Forest Service has prepared multiple years of monitoring reports regarding its implementation of road closures

in grizzly habitat. These monitoring reports establish that these road closures are routinely violated and therefore ineffective: members of the public regularly ignore signs, drive around gates or earthen berms, remove obstructions such as boulders or logs, or simply create their own new motorized routes.

The recurring problem of road closure failures undermines the foundation of the Flathead Forest Plan management regime, which relies on these road closures to achieve certain densities of open and total roads both inside and outside the Recovery Zone. The agencies must address this problem and its impacts in an updated ESA consultation for the Flathead Forest Plan. The agencies must also address this problem and its impact in an updated ESA consultation and in the special use projects and is another reason that an EIS should be written for the spexial use Projects.

The EA did not demonstrate that the Round Star project complies with the "best available science" on grizzly recovery, or the 2012 Planning Rule that required Forest to emphasize "Connectivity?"

The majority of the Northern Continental Divide Grizzly Bear Ecosystem – is National Forest land, managed by the Forest Service. In terms of all of the human uses that affect grizzly bears, "[r]oads probably pose the most imminent threat to

grizzly habitat today. The management of roads is one of the most powerful tools available to balance the needs of people with the needs of bears." Accordingly, the U.S. Fish & Wildlife Service (FWS) states: "It is strongly recommended that road management be given the highest priority within all recovery zones." Roads pose a threat to grizzly bears because roads provide humans with access into grizzly bear habitat, which leads to direct bear mortality from accidental shootings and intentional poachings.

Human access also leads to indirect bear mortality by creating circumstances in which bears become habituated to human food and are later killed by wildlife managers. Human access also results in indirect mortality by displacing grizzly bears from good habitat into areas that provide sub-optimal habitat conditions.

Displacement may have long term effects: "Females who have learned to avoid roads may also teach their cubs to avoid roads. In this way, learned avoidance behavior can persist for several generations of bears before they again utilize habitatassociated with closed roads." Both open and closed roadsdisplace grizzly bears: "grizzlies avoided roaded areas even where existing roads were officially closed to public use []. Females with cubs remained primarily in high, rocky, marginal habitat far from roads. Avoidance behavior by bears of illegal vehicular traffic, foot traffic, and/or authorized use behind road closures may account for the lack of use of areas near roads by female grizzly bears in this area.

This research demonstrated that a significant portion of the habitat in the study area apparently remained unused by female grizzlies for several years. Since adult females are the most important segment of the population, this lack of use of both open-roaded and closed-roaded areas is significant to the population." In addition to having a significant impact on female grizzly bears, displacement may also negatively impact the survival rates of grizzly cubs: "survivorship of the offspring of females that lived in unroaded, high elevation habitat was lower than that recorded in other study areas in the [Northern Continental Divide Ecosystem].

The majority of this mortality was due to natural factors related to the dangers of living in steep, rocky habitats. This is important in that the effects of road avoidance may result not only in higher mortality along roads and in avoidance of and lack of use of the resources along roads, but in the survival of young when their mothers are forced to live in less favorable areas away from roads."

Current peer-reviewed science still finds that roads have the most significant impact on grizzly bear survival: "[o]f all the covariates we examined, the amount of secure habitat and the density of roads in nonsecure habitat on public lands had thegreatest effect on grizzly bear survival."

Roads, even if nominally "temporary," can still have long-lasting generational displacement effects on grizzly bears because females teach their cubs to avoid these areas.

These roads can therefore result in direct mortality, indirect mortality, and reduced cub survival. When applied to an extremely small, endangered[2] population of fewer than 50 individuals that is already experiencing high mortality rates, failing recovery targets, and hovering at less than half the numbers needed for viability, these harms are amplified and create a great cause for concern for Alliance's members. Neither the "imminent harm" posed by roads nor the dire status of this population are acknowledged by the agencies.

The project will not maintaining and enhancing grizzly habitat and will increase the potential for grizzly-human conflicts in violation of NFMA, NEPA, the APA and the ESA.

The Forest does not have a good track record of keeping closed roads closed. The Forest Service does not disclose the road mileage behind these ineffective closures; therefore it is unclear how many miles of additional open and total roads must be added to the existing condition calculations as a result of these ineffective closures.

There are at least three problems with the FNF's record of amount of roads. First, because "undetermined" is a sub-category of "unauthorized" roads, it is possible that the particular undetermined roads at issue in this case were created —without authorization from the Forest Service—in the interim between the measurement of the Forest Plans baseline and the Forest Service's survey of existing roads for the Project.

All. for the Wild Rockies v. Savage, 897 F.3d 1025, 1036, n.18 (9th Cir. 2018). In light of these circumstances that (1) road

closures/barriers are regularly breached but the Forest Service conducts no systematic monitoring to determine how many miles of illegal road use are occurring behind barriers each year, and (2) the Forest Service simply ignores illegal "undetermined" roads and does not include them in its calculations for open or total roads in the annual monitoring reports, the open and total road numbers in the monitoring reports are not accurately reflecting the conditions on the ground. It is therefore reasonable to assume that the baselines in the project area regularly exceeded because the reported conditions hover at or near the baseline.

Chronic recurring road closure breaches cannot reasonably be construed as "temporary;" and illegal road use does not fall within the scope of Forest Plan "temporary" roads.

The Forest Service and FWS have acknowledge that road closure breaches (and resulting illegal road use) are not addressed in the Revised Flathead Forest Plan. Nonetheless, the agencies argue that all road closure breaches regardless of whether they are chronically recurring and regardless of how long they last on the landscape must be construed as "temporary" road increases. Onto this premise, the agencies then bootstrap an additional argument that because certain specific types of temporary roads were addressed in the Forest Plan, that discussion must also apply to "temporary" road increases from illegal road use.

First, it is not reasonable to construe recurring illegal road use as "temporary" road density increases. The monitoring reports

indicate that public users may repeatedly breach the same closure year after year. See, e.g., AR42:000059-62 (noting that boulders placed in 2015 have been removed and unauthorized users are again circumventing gate on Road 2236). Moreover, the Forest Service may take years to act on known violations. See, e.g., AR42:000061 ("The Clatter Creek gate (268) was included on the 2015 gate repair contract but after the bids came in the Clatter Creek gate was dropped due to repair costs for all gate repairs exceeding available funding. In BY2016 the gate remained damaged and ineffective."); see also AR43:000081-82 (note 2)(during planning for the Hanna Flats logging project in the Idaho Panhandle N.F., the Forest Service found illegal motorized use on 15.7 miles of road that were not included in the baseline but the agency postponed remedial action until implementation of the logging project; in the 2018 monitoring report, the agency concedes it has still not yet eliminated this illegal use); see also AR232:000767 (finding that four barriers did not effectively prevent motorized use but deferring any action to fix the problems).

Thus, while the Forest Service insists that all breaches are temporary, those same breaches may be recurring or may have lasted for many years prior to discovery and remedial action, resulting in a chronic situation. The situation is a good illustration of this problem S although the Forest Service insists that it fixes all breaches as soon as possible, many areas f the Flathead N.F. chronically fail to meet both the open and total road baseline conditions from the Forest Plan.

Second, even assuming that illegal road use could be construed as "temporary," it still does not have the same effect as lawful temporary road use. A breach of a closure device that results in public motorized use in effect results in an open road. The Forest Plan severely restricts temporary increases in open roads: "immediately following completion of all mechanized harvest and post- harvest slash activities requiring use of the road, to allow motorized public use during the bear summer season prior to the fall bear hunt (i.e., June 16 - August 31) for activities such as personal firewood collection. This public access would only be provided in cases where the mechanized harvest and/or post-harvest slash activities occurred during the same active bear year."

Moreover, illegal road use would also constitute an increase in total roads. However, temporary increases in total roads are only permitted if the roads are "effectively" gated to prevent public use during a project, (2) after project use, the roads are treated so as to "effectively prevent[] motorized access" and require no motorized access for maintenance for at least 10 years, and (3) upon project completion, the area is "returned to or below the baseline levels contained in Table 16" of the Forest Plan ROD. Obviously a road that has illegal road use is not "effectively" gated to prevent public use.

Thus, illegal road use does not comply with the restrictions set for lawful increases in temporary roads neither open nor closed in the Forest Plan and therefore cannot possibly have the same effects. It is simply implausible that unlimited illegal road use occurring at any time in any location would have the same effect

on grizzly bears as Forest Plan temporary roads that are significantly restricted in both timing and location. Indeed, illegal road use is illegal precisely because the Forest Service has already closed these specific roads to protect grizzly bears. If illegal motorized use occurs on these roads that were closed to protect grizzly bears, it may displace grizzly bears from areas that they would otherwise not be displaced from.

Because of the serious impacts to grizzly bears, please demonstrate compliance with Forest Plan standards relevant to grizzly bears, and analyze the direct, indirect, and cumulative impacts to grizzly bears.

The Forest Service must comply with National Forest Management Act ("NFMA") and its implementing regulations. NFMA requires the Forest Service to ensure that site-specific management projects are consistent with the applicable forest plan. 16 U.S.C. § 1604(i). Thus, the Forest Service must ensure that all aspects of the proposed action comply with the Flathead Panhandle National Forests Land Management Plan.

Road density and habitat security standards used by the Flathead NF are patently deficient, partly because they are based on research that conflates behavioral phenomena such as avoidance and displacement with demographic phenomena, notably survival. The scale is wrong as well, given that exposure to mortality hazards logically accrues over years as a consequence

of cumulative annual movements of bears vis-à-vis hazardous environs.

Compounding prospective problems with the project, proposed activities are concentrated in an area that is vital for facilitating movement of grizzly bears between core habitats. Project activities will diminish rather than enhance security needed not only to facilitate transit of bears, but also increase odds that exposed bears will survive.

The extent to which poaching, malicious killing, or other suspect circumstances are associated with human-caused deaths is also instructive regarding the overall effectiveness of conflict mitigation efforts during 1999-2017 to offset the problematic effects of road-access and poaching. By its nature, malicious killing/poaching is a criminal act undertaken by criminals. Such behavior is rooted in attitudes and outlooks that are notoriously unresponsive to education and 'outreach'. The phenomenon is about willful malfeasance. As such, limitations on road access coupled with improved law enforcement and successful prosecutions are logically the most appropriate redress—not, for example, conflict mitigation by a specialist who is not tasked primarily with law enforcement.

Before pursuing this any farther, some clarification of obfuscations in the dead bear database is needed. During 1999-2017 a number of deaths were ascribed to 'Undetermined' human causes, 'Poaching' or listed as 'Under investigation'. The first and last categories are not explicit, but nonetheless strongly

suggestive. Certainly, ‘Under investigation’ suggests that the death occurred under suspicious circumstances warranting investigation—with a strong likelihood of either poaching or other unwarranted lethal action by the involved people. Such suspicions are rarely definitively resolved. ‘Undetermined’ is also more suggestive of malfeasance rather than innocence on the part of the involved people. Given the alternatives, such deaths are more defensibly allocated to causes more resistant than not to

1) malicious or otherwise suspect causes account for a large portion—if not majority—of grizzly bear deaths in the Northern Contintenal Divide Ecosystem; (2) that aggressive limitations to road access by the USFS are needed, especially in areas with concentrations of productive habitat (Proctor et al. 2015, 2017).

F. Access Management is Critical to Limiting Malicious & Other Unjustified Killing

The consensus of relevant research is unambiguous about the link between road access and grizzly bear mortality. The more access, the more dead bears there are, with disproportionate concentrations near roads (Brannon et al. 1988; Benn & Herrero 2002; Nielsen et al. 2004; Wakkinen & Kasworm 2004; Boulanger & Stenhouse 2014; McLellan 2015; Proctor et al. 2017, 2018). Dead bears tend to be concentrated within 100 to 500 m of roads, averaging around 300 m (± 195 m) among studies where distance was noted.

Unfortunately, there is a common conflation of the extent to which radio-marked grizzly bears spatially avoid roads with the geospatial configuration of mortality risk and, even more

important, decrements in survival and population growth. These parameters are not synonymous. Even though a bear might underuse habitats within a certain distance of roads, this does not translate into a 1:1 correlation with exposure to risk of human-related mortality during a bear's lifetime. Conflation of avoidance with mortality risk has led to the unstated assumption that the former can be used to set standards for the latter.

Please examine the cumulative effects of this project.

The Forest Service could unequivocally benefit grizzly bears in this area by the closure and retirement of roads.

Benn, B., & Herrero, S. (2002). Grizzly bear mortality and human access in Banff and Yoho National Parks, 1971-98. Ursus, 13, 213-221.

Boulanger, J., & Stenhouse, G. B. (2014). The impact of roads on the demography of grizzly bears in Alberta. PloS One, 9(12), e115535.

Brannon, R. D., Mace, R. D., & Dood, A. R. (1988). Grizzly bear mortality in the northern Continental Divide ecosystem, Montana. Wildlife Society Bulletin, 16(3), 262-269.

Eberhardt, L. L., Blanchard, B. M., & Knight, R. R. (1994). Population trend of the Yellowstone grizzly bear as estimated from reproductive and survival rates. Canadian Journal of Zoology, 72(2), 360-363.

Garshelis, D. L., Gibeau, M. L., & Herrero, S. (2005). Grizzly bear demographics in and around Banff National Park and

Kananaskis country, Alberta. The Journal of Wildlife Management, 69(1), 277-297.

Harris, R. B., Schwartz, C. C., Haroldson, M. A., & White, G. C. (2006). Trajectory of the Yellowstone grizzly bear population under alternative survival rates. Wildlife Monographs, (161), 44-55.

Hovey, F. W., & McLellan, B. N. (1996). Estimating population growth of grizzly bears from the Flathead River drainage using computer simulations of reproduction and survival rates. Canadian Journal of Zoology, 74(8), 1409-1416.

Kasworm , W. F., Radant, T. G., Tesiberg, J. E., Welander, A., Proctor, M., & Cooley, H. (2018). Cabinet- Yaak Recovery Area 2017 research and monitoring progress report. US Fish & Wildlife Service, Missoula, Montana.

Kasworm, W. (2018). Selkirk/Cabinet-Yaak IGBC Subcommittee, meeting notes: 2018 research/monitoring update. http://igbconline.org/wp- content/uploads/ 2018/11/181108_SCYE_Mtg_Summary.pdf

Kendall, K. C., Macleod, A. C., Boyd, K. L., Boulanger, J., Royle, J. A., Kasworm, W. F., ... & Graves, T. A. (2016). Density, distribution, and genetic structure of grizzly bears in the Cabinet-Yaak Ecosystem. The Journal of Wildlife Management, 80(2), 314-331.

Ladle, A., Avgar, T., Wheatley, M., Stenhouse, G. B., Nielsen, S. E., & Boyce, M. S. (2018). Grizzly bear response to spatio-temporal variability in human recreational activity. Journal of Applied Ecology.

Mace, R. D., Carney, D. W., Chilton-Radandt, T., Courville, S. A., Haroldson, M. A., Harris, R. B., ... & Schwartz, C. C. (2012). Grizzly bear population vital rates and trend in the Northern Continental Divide Ecosystem, Montana. The Journal of Wildlife Management, 76(1), 119-128.

Mattson, D. J. (2019a). Effects of pedestrians on grizzly bears: An evaluation of the effects of hikers, hunters, photographers, campers, and watchers with reference to the proposed Pacific Northwest Trail. Grizzly Bear Recovery Project, Report GBRP-2019-3.

Mattson, D. J. (2019b). Effects of trains and railways on grizzly bears: An evaluation of the effects of increased train traffic on the Burlington Northern Santa Fe and Montana Rail-Link Railways, Montana- Idaho. Grizzly Bear Recovery Project, Report GBRP-2019-1.

Mattson, D. J., & Merrill, T. (2004). A model-based appraisal of habitat conditions for grizzly bears in the Cabinet–Yaak region of Montana and Idaho. Ursus, 15(1), 76-90.

McCall, B. S., Mitchell, M. S., Schwartz, M. K., Hayden, J., Cushman, S. A., Zager, P., & Kasworm, W. F. (2013). Combined use of mark-recapture and genetic analyses reveals response of a black bear population to changes in food productivity. The Journal of Wildlife Management, 77(8), 1572-1582.

McLellan, B. N., & Hovey, F. W. (2001). Habitats selected by grizzly bears in a multiple use landscape. The Journal of Wildlife Management, 65(1), 92-99.

McLellan, B. N. (2015). Some mechanisms underlying variation in vital rates of grizzly bears on a multiple use landscape. The Journal of Wildlife Management, 79(5), 749-765.

Proctor, M. F., Paetkau, D., Mclellan, B. N., Stenhouse, G. B., Kendall, K. C., Mace, R. D., ... & Wakkinen, W. L. (2012). Population fragmentation and inter-ecosystem movements of grizzly bears in western Canada and the northern United States. Wildlife Monographs, 180(1), 1-46.

Proctor, M. F., Nielsen, S. E., Kasworm, W. F., Servheen, C., Radandt, T. G., Machutchon, A. G., & Boyce, M. S. (2015). Grizzly bear connectivity mapping in the Canada–United States trans-border region. The Journal of Wildlife Management, 79(4), 544-558.

Proctor, M. F., Lamb, C. T., & MacHutchon, A. G. (2017). The grizzly dance between berries and bullets: relationships among bottom-up food resources and top-down mortality risk on grizzly bear populations in southeast British Columbia. Trans-border Grizzly Bear Project, Kaslo, British Columbia, Canada, http://transbordergrizzlybearproject.ca/research/publications.html.

Proctor, M. F., McLellan, B. N., Stenhouse, G. B., Mowat, G., Lamb, C. T., & Boyce, M. S. (2018). Resources roads and grizzly be4ars in British Columbia and Alberta, Canada. Trans-border Grizzly Bear Project, Kaslo, British Columbia, Canada, http://transbordergrizzlybearproject.ca/research/publications.html.

Wakkinen, W. L., & Kasworm, W. (1997). Grizzly bear and road density relationships in the Selkirk and Cabinet-Yaak recovery zones. US Fish and Wildlife Service, Kalispell, Montana.

Wakkinen, W. L., & Kasworm, W. F. (2004). Demographics and population trends of grizzly bears in the Cabinet–Yaak and Selkirk Ecosystems of British Columbia, Idaho, Montana, and Washington. Ursus, 15(1), 65-76.

Waller, J. S., & Mace, R. D. (1997). Grizzly bear habitat selection in the Swan Mountains, Montana. The Journal of Wildlife Management, 61(4), 1032-1039.

It is fair to assume that there are many more violations that regularly occur and are not witnessed and reported. It is also fair to assume that you have made no effort to request this available information from your own law enforcement officers, much less incorporate it into your analysis. Considering your own admissions that road density is the primary factor that degrades elk and grizzly habitat, this is a material and significant omission from your analysis– all of your ORD and HE calculations are wrong without this information.

The 2016 A19 report, Table 8b, shows the results of closure device monitoring on the Flathead National Forest from 2006 through 2015. This table shows from 3-13 percent of the barrier devices were found to be ineffective in preventing unauthorized use, depending on the year, with an average of 6.9 percent per year from 2006-2015. Since 2011, the average road closure effectiveness has improved, not declined. Since 2011, the

average percentage of ineffective closures improved to 5 percent (project file exhibit L-012).

The veracity of the FS's inventory of system and nonsystem ("undetermined" or "unauthorized") roads is at issue here also. This is partly because the FS basically turns a blind eye to the situation with insufficient commitment to monitoring, and also because violations are not always remedied in a timely manner.

The Round Star project would violate the Forest Plan/Access standards, a violation of NFMA because of road closure violations.

The EA does not disclose how many years the existing core ares have provided the habitat benefits assumed under the Forest Plan. As pointed out, some has been lost (due to "private infrastructure development") and we're not told of other likely and for see able reductions.

The EA does not take a hard look as road closure violations. It also shows the inadequacy of Forest Plan road density metrics.

Have you closed or obliterated all roads that were promised to be closed or obliterated in the Travel Plan? The DDN does not demonstrate that you have. Or, are you still waiting for funds to close or obliterate those roads? This distinction matters because

you cannot honestly claim that you are meeting road density standards promised by the Travel Plan if you have not yet completed the road closures/obliterations promised by the Travel Plan. Furthermore, as noted above, you have a major problem with recurring, chronic violations of the road closures created by the Travel Plan, which means that your assumptions in the Travel Plan that all closures would be effective has proven false. For this reason, you cannot tier to the analysis in the Travel Plan because it is invalid.

Christensen et al (1993) states: "Any motorized vehicle use on roads will reduce habitat effectiveness. Recognize and deal with all forms of motorized vehicles and all uses, including administrative use." Please disclose this to the public and stop representing that roads closed to the public should not be included in habitat effectiveness calculations. The facts that (a) you are constructing or reconstructing over 13.3 miles of new system roads and 5.3 miles of temporary roads for this project, (b) you have problems with recurring illegal use, which means that your conclusion that this Project will have no effect on open road density or habitat effectiveness is implausible to the point of being disingenuous. You cannot exclude these roads simply because you say they are closed to the public. Every road

receiving motorized use must be included in the HE calculation. You must consider all of this road use in order to take a hard look that is fully and fairly informed regarding habitat effectiveness. In the very least you must add in all “non-system” roads, i.e. illegal roads, as well as recurring illegal road use (violations) in your ORD calculations.

The Round Star project did not adequately analyze the cumulative effects on grizzly bears of the Round Star project and other cumulative effects on grizzly bears. Significant repairs to the Flathead Forest Plan, its Biological Opinion and its Incidental Take Statement for grizzly bear are firstly necessary to satisfy an order issued by U.S. District Judge Donald Molloy and to provide a lawful basis for preparation and public review of the Round Star project.

Equally important is that the Forest Service is asking the public to review and Object to the Round Star Project Draft Decision Notice and FONSI (which are dependent upon and must be consistent with the Flathead Forest Plan, its Biological Opinion and its Incidental Take Statement) at a time when it has no lawful Forest Plan, no lawful BiOp on its Forest Plan, and no lawful ITS for grizzly bears. Significant portions of these documents and provisions were struck down by U.S. District

Judge Donald Molloy on June 24, 2021 (see DROD DVD; Molloy 2021-06-24 Doc. 116 OPINION AND ORDER.pdf). But the FS and FWS have yet to issue a legally adequate Flathead Forest Plan, Plan BiOp or Plan ITS. Therefore, the public and Objectors are unable to compare the MSP with the requirements of a legally adequate Plan, BiOp and ITS because none currently exist.

REMEDY

Choose the No Action Alternative or you must either complete new NEPA analysis for the Travel Plan on this issue or provide that new analysis in the NEPA analysis for this Project. Either way, you must update your open road density calculations to include all roads receiving illegal use.

Creating barriers on roads to prevent motorized access will not affect recreational use, including hiking, hunting, bike riding, and berry picking, for example, Where are these impacts to grizzly bear displacement and mortality risk addressed?

The agency failed to define total road densities at present, what these will be during the 5 years of project implementation, and what these will be once the project is completed. So the impacts to grizzly bear displacement and mortality risk are not identified to the public.

In Case 9:19-cv-0056-DWM the United States District Court for the District of Montana ruled on 6/24/21 that the Flathead Forest Plan was illegal because the Fish and Wildlife Service violated the ESA by not considering the impacts of ineffective road closures in its 2017 BiOp. The court also ruled that the FWS violated the ESA by using a flawed incidental take statement for grizzly bears and the core density standards and secure core habitat surrogate violate the ESA.

The Revised Forest Plan and the Round Star project weakens grizzly bear habitat protections by allowing new roadbuilding throughout the Flathead National Forest, without meaningful and permanent reclamation of other roads elsewhere in the Forest to compensate for the new road construction. This new management direction is a significant departure from former Forest Plan Amendment 19, which required the Forest Service to reclaim roads according to stringent requirements such that a reclaimed road would "no longer function as a road or trail." Amendment 19 EA.

The New roadbuilding in the Round Star project without meaningful reclamation to ensure no net increase in the road system presents a significant threat to grizzly bears, because motor vehicle users and other recreationists can trespass on the supposedly "impassable" roads and thus encroach on grizzly bear habitat. Further, even unused roads cause detrimental impacts to grizzly bear survival and reproduction, because grizzly bears are displaced from roaded habitat, regardless of whether the roads receive public or administrative use.

However, in concluding that the Revised Forest Plan will not jeopardize the species, FWS's Revised Biological Opinion failed to adequately examine adverse impacts to grizzly bears from unauthorized motorized use on roads closed according to the Revised Forest Plan's weaker closure standards; failed to consider the displacement impacts caused by roads even when they do not receive motorized use; and failed to account for increased roadbuilding enabled by the Forest Service's abandonment of stringent road-reclamation requirements.

The Forest Service has failed to rationally determine, based on a consideration of all relevant factors, whether the Revised Forest Plan's new management direction will jeopardize the survival of grizzly bears in the Flathead and therefore the Round Star project.

The FWS's Revised Biological Opinion is therefore arbitrary, capricious, and not in accordance with law, and should be set aside pursuant to the ESA and APA and therefore can not be used as a basis for the Round Star Project.

Please disclose if the project is meeting:

(1) Forest Plan Standard 3 - Hiding Cover,

(2) Forest Plan Standard 3 - Thermal Cover,

(3) Forest Plan Standard 4a - Open Road

Density & Hiding Cover,

(4) Habitat Effectiveness,

(5) Hillis Elk Security at Elk Herd Unit level (i.e., including all lands), and

(6) Hillis-derived Elk Security at Elk Analysis Unit level (i.e., lands within National Forest boundary).

MT FWP has informed the Forest Service that total number of elk is not a correct measure of whether or not adequate secure big game habitat is available on Forest Service lands: “This is inappropriate because the correct measures of big game security are annual bull survival rates and the degree to which big game are retained on public land during the fall hunting season.”

Please disclose or address the displacement of elk from public land to private land during hunting season due to inadequate security habitat on National Forests.

FWP recommends that land managers provide enough secure habitat during fall to meet annual bull survival objectives while maintaining general bull harvest opportunity. . . .

In contrast, the number of elk that spend the majority of the year on some nearby private lands has increased dramatically between 1986 and 2013.

Has MT FWP urged the Flathead National Forestto increase functional fall habitat security on the Tally Lake Ranger District?

Please demonstrated compliance with the Montana Elk-Logging Study Recommendation for Road Management. The Road Management requirement states: “Where maintenance of elk habitat quality and security is an important consideration, open

road densities should be held to a low level, and every open road should be carefully evaluated to determine the possible consequences for elk." To not do so is a violation of NEPA,NFMA, and the APA.

Are you planning on issuing any amendments to the Forest Plan for this project. If so what?

Montana FWP has indicated that there is a serious problem with elk being displaced from insecure National Forest lands onto private land during hunting season. Repeatedly exempting logging and roading projects from the only quantitative limits on logging and roading on this National Forest exacerbates this elk displacement problem and (a) results in a failure to comply with Forest Plan objectives and goals to maintain elk habitat andhunter opportunity, (b) results in a major change to standards and guidelines intended to maintain elk habitat and hunter opportunity, (c)significantly limits hunter opportunity on this Forest, and (d) affects a large portion of this National Forest that is reasonably available to the public for hunting.

For these reasons, the Forest Service's practice of routinely exempting projects from Standards 3 and 4a amounts to a significant change to the Forest Plan, which requires analysis under 36 C.F.R. §219.10 (f) and 36 C.F.R. §219.12.

We wrote in our comments:

The area proposed for logging in the Sheppard and Logan watersheds has been heavily logged, burned, and then salvage logged in the recent past, it is time to give this place a rest. The results of this heavy past logging have placed Sheppard and Logan creeks on the Montana 303(d) list of impaired waters. The aquatic assessments done in 2020 concluded that these watersheds have not recovered and have not met the parameters of the Flathead-Stillwater Planning Area Nutrient, Sediment and Temperature TMDLs and Water Quality Improvement Plan 2014.

Sheppard Creek's impairments from headwaters to mouth of Griffin Creek are Alteration in stream-side or littoral vegetative covers with sources identified as Forest Roads (road construction and use) and Grazing in Riparian or Shoreline Zones. It is also impaired by Sedimentation/Siltation with sources identified as Silviculture Harvesting and Crop Production (crop land or dry land). It is not fully supporting aquatic life.

Logan Creek's impairments from headwaters to Tally Lake are Flow Regime Modification from Forest Roads (Road Construction and Use), Physical substrate habitat alterations from silviculture activities and sedimentation siltation from streambank modifications/destabilization. It is also not fully supporting aquatic life.

Rather than trim back the project and not construct new roads the EA concludes that implementation of the proposed action (or no-action alternative) individually or cumulatively would

not alter the current findings for watershed condition framework and would not impair water quality beneficial uses.

The watershed condition framework rating for aquatic biota condition in Evers, Lower Logan, Middle Logan, Sheppard and Tobie Creek is poor indicating that these streams are functioning at unacceptable risk. This rating will not change post project so the project will maintain degraded habitat conditions that is impairing aquatic life. Second, water quality beneficial uses are already impaired and this project does nothing to improve them. The Forest Service is violating the Clean Water Act by maintaining degraded water quality that is impairing beneficial uses for aquatic life. It is likely that Evers and Tobie Creeks should also be on the 303(d) list since they are also functioning at unacceptable risk for aquatic biota.

Then the EA states, "emphasizing the most important factor in sediment load reduction for both Logan and Sheppard Creek may simply be time." This could possibly be true (although road decommissioning would hasten improvement) but this project builds over 20 miles of new roads with 13 new stream crossings, clearcut logs 85 acres in the RMZs (593 total logged acres in the outer and 52.1 in the inner RMZs) adding impacts and not allowing the streams to heal and improve.

The Forest Service did not respond:

Since the Forest Service did not respond the project is in violation of NEPA. It is also in violation of the Clean Water Act, Montana Water Quality Laws, the Montana Constitution's

requirement for a Clean and Healthful environment, NFMA, and the APA.

REMEDY

Withdraw the DDN and FONSI and write an EIS that fully complies with the law or choose the No Action Alternative.

We wrote in our comments:

Please list each visual quality standard that applies to each unit and disclose whether each unit meets its respective visual quality standard.

The Forest Service responded:

There are approximately 25 activity units where existing scenic integrity objectives do not meet desired scenic integrity objectives. With implementation of visual design features, units would either meet desired scenic integrity objectives with, or are commercial or pre-commercial thinning treatments which do not have obvious deviations. Three units with either seed tree or shelterwood prescription are visible from the Tally Lake viewpoint and currently do not meet desired scenic integrity objectives. These units partially overlap or are adjacent to areas with previous activity, influencing the scenic landscape. All other units in Moderate scenic integrity objectives would meet or exceed scenic integrity objectives in the long-term and be moving towards it in the short-term by creating a more stable scenic composition, increasing stand health, diversifying vegetation composition, and creating scenic variety and interest.

The Forest Service admitted that the Round Star project is not meeting the visual quality standard. The project is in violation of NEPA, NFMA, and the APA.

REMEDY

Withdraw the DDN and FONSI and write an EIS that fully complies with the law or choose the No Action Alternative.

The DDN states on page one:

The purpose of the Round Star Project is to move the project area towards the desired conditions defined by the 2018 Flathead National Forest Land Management Plan (forest plan). The difference between the existing condition and the desired condition creates a need for management action on the ground. The following purposes for the Round Star Project compelled the need for action:

- ***Improve the diversity and resilience of terrestrial ecosystems and vegetation.***

- ***Reduce tree densities and fuel loadings within the wildland-urban interface to result in***

less intense fire behavior near communities and facilitate safe wildland fire operations.

- ***Provide a mix of forest products to contribute to economic sustainability, providing jobs and income to local economies.***

The abstract of DellaSalla et al 2022 states:

Fire suppression policies and "active management" in response to wildfires are being carried out by land man- agers globally, including millions of hectares of mixed conifer and dry ponderosa pine (Pinus ponderosa) forests of the western USA that periodically burn in mixed severity fires. Federal managers pour billions of dollars into command-and-control fire suppression and the MegaFire (landscape scale) Active Management Approach (MFAMA) in an attempt to contain wildfires increasingly influenced by top down climate forcings. Wildfire suppression activities aimed at stopping or slowing fires include expansive dozerlines, chemical retardants and igniters, backburns, and cutting trees (live and dead), including within roadless and wilderness areas. MFAMA involves logging of large, fire-resistant live trees and snags; mastication of beneficial shrubs; degradation of wildlife habitat, including endangered species habitat; aquatic impacts from an expansive road system; and logging-related carbon emissions. Such impacts are routinely dismissed with minimal environmental review and defiance of the precautionary principle in environmental planning. Placing restrictive bounds on these activities, deemed increasingly ineffective in a change climate, is urgently needed to overcome their contributions to the global biodiversity and climate crises. We

urge land managers and decision makers to address the root cause of recent fire increases by reducing greenhouse gas emissions across all sectors, reforming industrial forestry and fire suppression practices, protecting carbon stores in large trees and recently burned forests, working with wildfire for ecosystem benefits using minimum suppression tactics when fire is not threatening towns, and surgical application of thinning and prescribed fire nearest homes.

The Round Star project is not following the best available science and not meeting the purpose and need of the project in violation of NEPA, NFMA, and the APA.

Please see the attached paper by Dr. William Baker titled: "Are High-Severity Fires Burning at Much Higher Rates Recently than Historically in Dry-Forest Landscapes of the Western USA?"

Dr. Baker writes: "Programs to generally reduce fire severity in dry forests are not supported and have significant adverse ecological impacts, including reducing habitat for native species dependent on early-successional burned patches and decreasing landscape heterogeneity that confers resilience to climatic change."

Dr. Baker concluded: "Dry forests were historically renewed, and will continue to be renewed, by sudden, dramatic, high-

intensity fires after centuries of stability and lower-intensity fires."

Based on Dr. Baker's paper, the proposed action will not meet the purpose and need of the project. Baker writes on p. 20:

"Management issues

The evidence presented here shows that efforts to generally lower fire severity in dry forests for ecological restoration are not supported."

Dr. Baker's paper is the best available science. Please explain why this project is not following the best availablescience. The Draft Decision Notice is in violation of NEPA.

In "Fire Ecology in Rocky Mountain Landscapes" by William Baker, Dr. Baker writes on page 435, " ...a prescribed fire regime that is too frequent can reduce species diversity (Laughlin and Grace 2006) and favor invasive species (M.A. Moritz and Odion 2004). Fire that is entirely low severity in ecosystems that historically ex- perience some high-severity fire may not favor germination of fire- dependent species (M.A. Moritiz and Odion 2004) or provide habitat key animals (Smucker, Hutto, and Steele 2005)." Baker continues on page 436: "Fire rotations equal the average mean fire interval across a

landscape and are appropriate intervals at which individual points or the whole landscape is burned. Composite fire intervals underestimate mean fire interval and fire rotation (chap 5) and should not be used as prescribed burning intervals as this would lead to too much fire and would likely lead to adversely affect biological diversity (Laughlin and Grace 2006).”

Please find (Laughlin and Grace 2006) attached.

Dr. Baker estimates the high severity fire rotation to be 135 - 280 years for lodgepole pine forests. (See page 162.). Baker writes on page 457-458 of Fire Ecology in Rocky Mountain Landscapes:
“Fire rotation has been estimated as about 275 years in the Rockies as a whole since 1980 and about 247 years in the northern Rockies over the last century, and both figures are near the middle between the low (140 years) and high (328 years) estimates for fire rotation for the Rockies under the HRV (chap. 10). These estimates suggest the since EuroAmerican settlement, fire control and other activities may have reduced fire somewhat in particular places, but a general syndrome of fire exclusion is lacking. Fire exclusion also does not accurately characterize the effects of land users on fire or match the pattern of change in area burned at the state level over the last century (fig 10.9). In contrast, fluctuation in drought linked to atmospheric conditions

appear to match many state-level patterns in burned area over the last century. Land uses that also match fluctuations include logging, livestock grazing, roads and development, which have generally increased flammability and ig- nition at a time when the climate is warming and more fire is com- ing."

Schoennagel et al (2004) (please find attached) states: "High-elevation subalpine forests in the Rocky Mountains typify ecosystems that experience infrequent, high-severity crown fires []. . . The most extensive subalpine forest types are composed of Engelmann spruce (Picea engelmannii), sub- alpine fir (Abies lasiocarpa), and lodgepole pine (Pinus contorta), all thin-barked trees easily killed by fire. Extensive stand-replacing fires occurred historically at long intervals (i.e., one to many centuries) in subalpine forests, typically in association with infrequent high-pressure blocking systems that promote extremely dry regional climate pat-terns." Please find Schoennagel et al (2004) attached.

Schoennagel et al (2004) states: "it is unlikely that the short period of fire exclusion has significantly altered the long fire intervals in subalpine forests. Furthermore, large, intense fires burning under dry conditions are very difficult, if not impossible, to suppress, and such fires account for the majority of area burned in subalpine forests.

Schoennagel et al (2004) states: “Moreover, there is no consistent re- lationship between time elapsed since the last fire and fuel abun- dance in subalpine forests, further undermining the idea that years of fire suppression have caused unnatural fuel buildup in this forest

zone.”

Schoennagel et al (2004) states: “No evidence suggests that spruce– fir or lodgepole pine forests have experienced substantial shifts in stand structure over recent decades as a result of fire suppression. Overall, variation in cli-mate rather than in fuels appears to exert the largest influence on the size, timing, and se-verity of fires in sub- alpine forests []. We conclude that large, infrequent stand replacing fires are ‘business as usual’ in this forest type, not an artifact of fire suppression.”.

Schoennagel et al (2004) states: “Contrary to popular opinion, previous fire suppression, which was consistently effective from about 1950 through 1972, had only a minimal effect on the large fire event in 1988. Reconstruction of historical fires indicates that similar large, high-severity fires also occurred in the early 1700s. Given the historical range of variability of fire regimes in high-elevation subalpine forests, fire behavior in Yellowstone

during 1988, although severe, was neither unusual nor surprising."

Schoennagel et al. (2004) states: "Mechanical fuel reduction in sub-alpine forests would not represent a restoration treatment but rather a departure from the natural range of variability in stand structure."

Schoennagel et al (2004) states: "Given the behavior of fire in Yellowstone in 1988, fuel reduction projects probably will not substantially reduce the frequency, size, or severity of wildfires under ex- treme weather conditions."

Schoennagel et al (2004) states: "The Yellow-stone fires in 1988 revealed that variation in fuel conditions, as measured by stand age and density, had only minimal influence on fire behavior. Therefore, we expect fuel- reduction treatments in high-elevation forests to be generally unsuccessful in reducing fire frequency, severity, and size, given the overriding importance of extreme climate in controlling fire regimes in this zone. Thinning also will not re-store subalpine forests, because they were dense historically and have not changed significantly in response to fire suppression. Thus, fuel- reduction ef- forts in most Rocky Mountain subalpine forests probably would not effectively mitigate the fire hazard, and these efforts may create

new ecological problems by moving the forest structure out-side the his- toric range of variability."

Please find Schoennagel et al (2004) attached.

The NEPA requires a "hard look" at climate issues, including cumulative effects of the "treatments" in the proposed project when added to the heat, drought, wind and other impacts associated with in- creased climate risk. Regeneration/ Restocking failure following wildfire, prescribed fire and/or mechanical tree-killing has not been analyzed or disclosed. There is a considerable body of science that suggests that regeneration following fire is increasingly problematic.

NEPA requires disclosure of impact on "the human environment." Climate risk presents important adverse impacts on cultural, economic, environmental, and social aspects of the human environment. – people, jobs, and the economy – adjacent to and near the project area. Challenges in predicting responses of individual tree species to climate are a result of species competing under a never-before-seen climate regime – one forests may not have experienced before either.

In an uncertain future of rapid change and abrupt, unforeseen transitions, adjustments in management approaches will be necessary and some actions will fail. However, it is increasingly

evident that the greatest risk is posed by continuing to implement strategies inconsistent with and not informed by current understanding of our novel future....

Achievable future conditions as a framework for guiding forest conservation and management, Forest Ecology and Management 360 (2016) 80–96, S.W. Golladay et al. (Please, find attached)

Stands are at risk of going from forest to non-forest, even without the added risk of "management" as proposed in the project area. The project is currently is violation of NEPA, NFMA, and the APA.

REMEDY

Choose the No Action Alternative or withdraw the Draft Decision Notice (DDN) and write and EIS that fully complies with the law.

We wrote in our comments:

Please make certain that the Wildland Urban Interface is correctly defined. We frequently see projects defined with a very large WUI, which has not been defined correctly. This is particularly important for exceptions and exemptions for activity in lynx habitat, including critical habitat.

The Forest Service responded:

- ***The Community Wildfire Protection Plan for Flathead County, MT was updated in 2021. The Round Star Project used the updated WUI identified in the 2021 Community Wildfire Protection Plan. This project does not include use of lynx exceptions or exemptions.*** (P. 31 DDN)

The Round Star Project DDN, FONSI and EA did not clearly demonstrate that the project uses a legal definition of the Wildland Urban Interface (WUI) in violation of NEPA, NFMA, the Healthy Forest Act and the APA. The Round Star Project purpose and need is based on false assumptions in violation of NEPA, NFMA and the APA.

Remedy

Choose the No Action Alternative or withdraw the draft decision and write an EIS that fully complies with the law.

We wrote in our comments:

CANADA LYNX VIABILITY

On page 325 of the EA, it discusses "Correlates of Canada Lynx Reproductive Success in Northwestern Montana" by Megan K. Kosterman.

And "Understanding and predicting habitat for wildlife conservation: the case of Canada lynx at the range periphery" by HOLBROOK et al that confirms Kosterman's findings.

Does the action alternative comply with Kosterman and Holbrook's recommendations?

1) USFS needs to take a hard look at impacts to lynx under NEPA, apply the lynx conservation measures and standards of the NRLMD, and consult on lynx via section 7 of the ESA b/c the best available science -- including recent tracking surveys conducted by WTU -- confirm lynx's presence and use of the area;

(3) USFS has failed to survey for lynx as required by the Biological Opinion on the Northern Rockies Lynx Management Direction (NRLMD).

In order to meet the requirements of the FS/USFWS Conservation Agreement, the FS agreed to insure that all project activities are consistent with the Lynx Conservation Assessment and Strategy (LCAS).

LCAS requirements include:

Project planning—standards.
1. Within each LAU, map lynx habitat. Identify potential denning habitat and foraging habitat (primarily snowshoe hare habitat, but also habitat for important alternate prey such as red squirrels), and topographic features that may be important for lynx movement (major ridge systems, prominent saddles, and riparian corridors). Also identify non-forest vegetation (meadows), shrub-grassland communities, etc.)

adjacent to and intermixed with forested lynx habitat that may provide habitat for alternate lynx prey species.

2. Within a LAU, maintain denning habitat in patches generally larger than 5 acres, comprising at least 10 percent of lynx habitat. Where less than 10 percent denning habitat is currently present within a LAU, defer any management actions that would delay development of denning habitat structure.

3. Maintain habitat connectivity within and between LAUs.

Programmatic planning-standards.

1. Conservation measures will generally apply only to lynx habitat on federal lands within LAUs.

2. Lynx habitat will be mapped using criteria specific to each geographic area to identify appropriate vegetation and environmental conditions. Primary vegetation includes those types necessary to support lynx reproduction and survival. It is recognized that other vegetation types that are intermixed with the primary vegetation will be used by lynx, but are considered to contribute to lynx habitat only where associated with the primary vegetation. Refer to glossary and description for each geographic area.

3. To facilitate project planning, delineate LAUs. To allow for assessment of the potential effects on an individual lynx, LAUs should be at least the size of area used by a resident lynx and contain sufficient year-round habitat.
4. To be effective for the intended purposes of planning and monitoring, LAU boundaries will not be adjusted for

individual projects, but must remain constant.
5. Prepare a broad-scale assessment of landscape patterns that compares historical and current ecological processes and vegetation patterns, such as age-class distributions and patch size characteristics. In the absence of guidance developed from such an assessment, limit disturbance within each as follows: if more than 30 percent of lynx habitat within an LAU is currently in unsuitable condition, no further reduction of suitable conditions shall occur as a result o vegetation management activities by federal agencies.

Project planning-standards.
1. Management actions (e.g., timber sales, salvage sales) shall not change more than 15 percent of lynx habitat within a LAU to an unsuitable condition within a 10- year period.

Programmatic planning-standards.
1. Identify key linkage areas that may be important in providing landscape connectivity within and between geographic areas, across all ownerships.
2. Develop and implement a plan to protect key linkage areas on federal lands from activities that would create barriers to movement. Barriers could result from an accumulation of incremental projects, as opposed to any one project.

Please demonstrate that project activities are consistent with above and all other applicable programmatic and project requirements.

The U.S. Court of Appeals for the Ninth Circuit hold that "[o]nce an agency is aware that an endangered species may be

present in the area of its proposed action, the ESA requires it to prepare a biological assessment . . . .” Thomas v. Peterson, 753 F. 2d 754, 763 (9thCir. 1985). If the biological assessment concludes that the proposed action “may affect” but will “not adversely affect” a threatened or endangered species, the action agency must consult informally with the appropriate expert agency. 50 C.F.R. §§ 402.14 (b)(1), 402.12(k)(1).

Canada lynx are listed under the ESA.

Canada lynx may be present in the project area and the proposed project may affect lynx by temporarily increasing road density, removing vegetative cover, and engaging in mechanized activities that could displace lynx.

Please complete a biological assessment for lynx and formally consult with USFWS regarding the project’s potential impacts on lynx.

The Forest Service responded:

Section 7 consultation with USFWS will be completed for all ESA proposed species, listed species, and designated critical habitat known to occur in the project area before the decision for the project is finalized.

The analysis for the Project considered the best available scientific information in relation to Canada lynx. Forest plan direction for management of lynx habitat is beyond the scope of this project.

THE AGENCIES MUST REINITIATE

CONSULTATION ON THE NORTHERN ROCKIES LYNX MANAGEMENT DIRECTION.

The Northern Rockies Lynx Management Direction is inadequate to ensure conservation and recovery of lynx. The amendments fail to use the best available science on necessary lynx habitat elements, including but not limited to, failing to include standards that protect key winter habitat.

The Forest Service did not respond to all of the issues, concerns, and questions we raised about lynx and lynx critical habitat in violation of the ESA, NEPA, NFMA, and the APA. The Forest Service did not adequately show that the Round Star project complies with the law.

REMEDY

Withdraw the DDN and FONSI and write an EIS that fully complies with the law.

We wrote in our comments:

Grizzly Bears

The preservation of endangered species takes "priority over the 'primary missions' of federal agencies." Accordingly, courts must "afford[] endangered species the highest of priorities," and act with "institutionalized caution" when reviewing ESA cases. Cottonwood Envtl. Law Ctr. v. USFS, 789 F.3d 1075, 1091 (9th Cir.2015). This Court holds that the "fundamental principle [of institutionalized caution] remains intact and will continue to guide district courts when confronted with requests for injunctive relief in ESA cases." Id. Although the district court did not apply this fundamental principle in this case, this Court may now remedy that error by issuing a temporary injunction pending appeal to preserve the status quo until a final decision is issued on the merits.

Measures implemented beginning in the 1990s for protection of the threatened grizzly bear have decreased the amount of road available for motorized public travel and management activities, while increasing security for grizzly bears as well as other wildlife species.

The well-established scientific consensus is that roads pose the most imminent risk to this grizzly population. Ninety percent of this population's Recovery Zone habitat is located on public National Forest lands. Thus, the federal government has the power to limit road density for grizzly bear protection on the

vast majority of its habitat and thereby prevent the extinction of this grizzly population.

However, the U.S. Forest Service has prepared multiple years of monitoring reports regarding its implementation of road closures in grizzly habitat. These monitoring reports establish that these road closures are routinely violated and therefore ineffective: members of the public regularly ignore signs, drive around gates or earthen berms, remove obstructions such as boulders or logs, or simply create their own new motorized routes.

Please disclose how often closed roads are monitored for closure violations. Please disclose all of the road closure violations in the Flathead National Forest over the last 5 years.

The recurring problem of road closure failures undermines the foundation of the Flathead Forest Plan management regime, which relies on these road closures to achieve certain densities of open and total roads both inside and outside the Recovery Zone. The agencies must address this problem and its impacts in an updated ESA consultation for the Flathead Forest Plan. The agencies must also address this problem and its impact in an updated ESA consultation and in the special use projects and is another reason that an EIS should be written for the spexial use Projects.

How does the FP complies with the "best available science" on grizzly recovery, or the 2012 Planning Rule that required Forest to emphasize "Connectivity?"

The majority of the Northern Continental Divide Grizzly Bear Ecosystem – is National Forest land, managed by the Forest Service. In terms of all of the human uses that affect grizzly bears, "[r]oads probably pose the most imminent threat to grizzly habitat today. The management of roads is one of the most powerful tools available to balance the needs of people with the needs of bears." Accordingly, the U.S. Fish & Wildlife Service (FWS) states: "It is strongly recommended that road management be given the highest priority within all recovery zones." Roads pose a threat to grizzly bears because roads provide humans with access into grizzly bear habitat, which leads to direct bear mortality from accidental shootings and intentional poachings.

Human access also leads to indirect bear mortality by creating circumstances in which bears become habituated to human food and are later killed by wildlife managers. Human access also results in indirect mortality by displacing grizzly bears from good habitat into areas that provide sub-optimal habitat conditions.

Displacement may have long term effects: "Females who have learned to avoid roads may also teach their cubs to avoid roads. In this way, learned avoidance behavior can persist for several generations of bears before they again utilize

habitatassociated with closed roads." Both open and closed roadsdisplace grizzly bears: "grizzlies avoided roaded areas even where existing roads were officially closed to public use []. Females with cubs remained primarily in high, rocky, marginal habitat far from roads. Avoidance behavior by bears of illegal vehicular traffic, foot traffic, and/or authorized use behind road closures may account for the lack of use of areas near roads by female grizzly bears in this area.

This research demonstrated that a significant portion of the habitat in the study area apparently remained unused by female grizzlies for several years. Since adult females are the most important segment of the population, this lack of use of both open-roaded and closed-roaded areas is significant to the population." In addition to having a significant impact on female grizzly bears, displacement may also negatively impact the survival rates of grizzly cubs: "survivorship of the offspring of females that lived in unroaded, high elevation habitat was lower than that recorded in other study areas in the [Northern Continental Divide Ecosystem].

The majority of this mortality was due to natural factors related to the dangers of living in steep, rocky habitats. This is important in that the effects of road avoidance may result not only in higher mortality along roads and in avoidance of and lack of use of the resources along roads, but in the survival of young when their mothers are forced to live in less favorable areas away from roads."

Current peer-reviewed science still finds that roads have the most significant impact on grizzly bear survival: "[o]f all the covariates we examined, the amount of secure habitat and the density of roads in nonsecure habitat on public lands had thegreatest effect on grizzly bear survival."

Roads, even if nominally "temporary," can still have long-lasting generational displacement effects on grizzly bears because females teach their cubs to avoid these areas.

These roads can therefore result in direct mortality, indirect mortality, and reduced cub survival. When applied to an extremely small, endangered[2] population of fewer than 50 individuals that is already experiencing high mortality rates, failing recovery targets, and hovering at less than half the numbers needed for viability, these harms are amplified and create a great cause for concern for Alliance's members. Neither the "imminent harm" posed by roads nor the dire status of this population are acknowledged by the agencies.

The project will not maintaining and enhancing grizzly habitat and will increase the potential for grizzly-human conflicts in violation of NFMA, NEPA, the APA and the ESA.

The Forest does not have a good track record of keeping closed roads closed. The Forest Service does not disclose the road mileage behind these ineffective closures; therefore it is unclear how many miles of additional open and total roads must be added to the existing condition calculations as a result of these ineffective closures.

There are at least three problems with the FNF's record of amount of roads. First, because "undetermined" is a sub-category of "unauthorized" roads, it is possible that the particular undetermined roads at issue in this case were created—without authorization from the Forest Service—in the interim between the measurement of the Forest Plans baseline and the Forest Service's survey of existing roads for the Project.

All. for the Wild Rockies v. Savage, 897 F.3d 1025, 1036, n.18 (9th Cir. 2018). In light of these circumstances that (1) road closures/barriers are regularly breached but the Forest Service conducts no systematic monitoring to determine how many miles of illegal road use are occurring behind barriers each year, and (2) the Forest Service simply ignores illegal "undetermined" roads and does not include them in its calculations for open or total roads in the annual monitoring reports, the open and total road numbers in the monitoring reports are not accurately reflecting the conditions on the ground. It is therefore reasonable to assume that the baselines in the project area regularly exceeded because the reported conditions hover at or near the baseline.

Chronic recurring road closure breaches cannot reasonably be construed as "temporary;" and illegal road use does not fall within the scope of "temporary" roads.

The Forest Service and FWS have acknowledge that road closure breaches (and resulting illegal road use) are not addressed in the Revised Flathead Forest Plan. Nonetheless,

the agencies argue that all road closure breaches regardless of whether they are chronically recurring and regardless of how long they last on the landscape must be construed as "temporary" road increases. Onto this premise, the agencies then bootstrap an additional argument that because certain specific types of temporary roads were addressed in the Forest Plan, that discussion must also apply to "temporary" road increases from illegal road use.

First, it is not reasonable to construe recurring illegal road use as "temporary" road density increases. The monitoring reports indicate that public users may repeatedly breach the same closure year after year. See, e.g., AR42:000059-62 (noting that boulders placed in 2015 have been removed and unauthorized users are again circumventing gate on Road 2236). Moreover, the Forest Service may take years to act on known violations. See, e.g., AR42:000061 ("The Clatter Creek gate (268) was included on the 2015 gate repair contract but after the bids came in the Clatter Creek gate was dropped due to repair costs for all gate repairs exceeding available funding. In BY2016 the gate remained damaged and ineffective."); see also AR43:000081-82 (note 2)(during planning for the Hanna Flats logging project in the Idaho Panhandle N.F., the Forest Service found illegal motorized use on 15.7 miles of road that were not included in the baseline but the agency postponed remedial action until implementation of the logging project; in the 2018 monitoring report, the agency concedes it has still not yet eliminated this illegal use); see also AR232:000767

(finding that four barriers did not effectively prevent motorized use but deferring any action to fix the problems).

Thus, while the Forest Service insists that all breaches are temporary, those same breaches may be recurring or may have lasted for many years prior to discovery and remedial action, resulting in a chronic situation. The situation is a good illustration of this problem S although the Forest Service insists that it fixes all breaches as soon as possible, nonetheless at least four out of seven BORZ areas chronically fail to meet both the open and total road baseline conditions from the Access Amendment, as shown above in the table in Section B.

Second, even assuming that illegal road use could be construed as "temporary," it still does not have the same effect as lawful temporary road use. A breach of a closure device that results in public motorized use in effect results in an open road. The Access Amendment severely restricts temporary increases in open roads: "immediately following completion of all mechanized harvest and post- harvest slash activities requiring use of the road, to allow motorized public use during the bear summer season prior to the fall bear hunt (i.e., June 16 - August 31) for activities such as personal firewood collection. This public access would only be provided in cases where the mechanized harvest and/or post-harvest slash activities occurred during the same active bear year."

Thus, temporary increases in open roads are limited to a June 16-August 31 window, and may only occur in the same year in

which logging activities have already occurred and used that particular road, presumably because grizzlies would have already been displaced from those areas. In contrast, illegal motorized use behind road closure breaches is not limited to a June 16-August 31 window, and is not limited to a single year entry on a road along and on which logging activities have already been occurring.

Moreover, illegal road use would also constitute an increase in total roads. However, temporary increases in total roads are only permitted if the roads are "effectively" gated to prevent public use during a project, (2) after project use, the roads are treated so as to "effectively prevent[] motorized access" and require no motorized access for maintenance for at least 10 years, and (3) upon project completion, the area is "returned to or below the baseline levels contained in Table 16" of the Access Amendment ROD. Obviously a road that has illegal road use is not "effectively" gated to prevent public use.

Thus, illegal road use does not comply with the restrictions set for lawful increases in temporary roads neither open nor closed in the Access Amendment and therefore cannot possibly have the same effects. It is simply implausible that unlimited illegal road use occurring at any time in any location would have the same effect on grizzly bears as Access Amendment temporary roads that are significantly restricted in both timing and location. Indeed, illegal road use is illegal precisely because the Forest Service has already closed these specific roads to protect grizzly bears. If illegal motorized use occurs on these roads that were closed to protect grizzly bears, it may

displace grizzly bears from areas that they would otherwise not be displaced from.

Becasue of the serious impacts to grizzly bears, please demonstrate compliance with Forest Plan standards relevant to grizzly bears, and analyze the direct, indirect, and cumulative impacts to grizzly bears.

The Forest Service must comply with National Forest Management Act ("NFMA") and its implementing regulations. NFMA requires the Forest Service to ensure that site-specific management projects are consistent with the applicable forest plan. 16 U.S.C. § 1604(i). Thus, the Forest Service must ensure that all aspects of the proposed action comply with the Flathead Panhandle National Forests Land Management Plan.

Road density and habitat security standards used by the Flathead NF are patently deficient, partly because they are based on research that conflates behavioral phenomena such as avoidance and displacement with demographic phenomena, notably survival. The scale is wrong as well, given that exposure to mortality hazards logically accrues over years as a consequence of cumulative annual movements of bears vis-à-vis hazardous environs.

Compounding prospective problems with the project, proposed

activities are concentrated in an area that is vital for facilitating movement of grizzly bears between core habitats. Project activities will diminish rather than enhance security needed not only to facilitate transit of bears, but also increase odds that exposed bears will survive.

The extent to which poaching, malicious killing, or other suspect circumstances are associated with human-caused deaths is also instructive regarding the overall effectiveness of conflict mitigation efforts during 1999-2017 to offset the problematic effects of road-access and poaching. By its nature, malicious killing/poaching is a criminal act undertaken by criminals. Such behavior is rooted in attitudes and outlooks that are notoriously unresponsive to education and 'outreach'. The phenomenon is about willful malfeasance. As such, limitations on road access coupled with improved law enforcement and successful prosecutions are logically the most appropriate redress—not, for example, conflict mitigation by a specialist who is not tasked primarily with law enforcement.

Before pursuing this any farther, some clarification of obfuscations in the dead bear database is needed. During 1999-2017 a number of deaths were ascribed to 'Undetermined' human causes, 'Poaching' or listed as 'Under investigation'. The first and last categories are not explicit, but nonetheless strongly suggestive. Certainly, 'Under investigation' suggests that the death occurred under suspicious circumstances warranting investigation—with a strong likelihood of either poaching or other unwarranted lethal action by the involved people. Such suspicions are rarely

definitively resolved. 'Undetermined' is also more suggestive of malfeasance rather than innocence on the part of the involved people. Given the alternatives, such deaths are more defensibly allocated to causes more resistant than not to

1) malicious or otherwise suspect causes account for a large portion—if not majority—of grizzly bear deaths in the Northern Contintenal Divide Ecosystem; (2) that aggressive limitations to road access by the USFS are needed, especially in areas with concentrations of productive habitat (Proctor et al. 2015, 2017).

F. Access Management is Critical to Limiting Malicious & Other Unjustified Killing

The consensus of relevant research is unambiguous about the link between road access and grizzly bear mortality. The more access, the more dead bears there are, with disproportionate concentrations near roads (Brannon et al. 1988; Benn & Herrero 2002; Nielsen et al. 2004; Wakkinen & Kasworm 2004; Boulanger & Stenhouse 2014; McLellan 2015; Proctor et al. 2017, 2018). Dead bears tend to be concentrated within 100 to 500 m of roads, averaging around 300 m (± 195 m) among studies where distance was noted.

Unfortunately, there is a common conflation of the extent to which radio-marked grizzly bears spatially avoid roads with the geospatial configuration of mortality risk and, even more important, decrements in survival and population growth. These parameters are not synonymous. Even though a bear might underuse habitats within a certain distance of roads, this does not translate into a 1:1 correlation with exposure to

risk of human-related mortality during a bear's lifetime. Conflation of avoidance with mortality risk has led to the unstated assumption that the former can be used to set standards for the latter.

Please examine the cumulative effects of this project.

The Forest Service could unequivocally benefit grizzly bears in this area by the closure and retirement of roads.

Benn, B., & Herrero, S. (2002). Grizzly bear mortality and human access in Banff and Yoho National Parks, 1971-98. Ursus, 13, 213-221.

Boulanger, J., & Stenhouse, G. B. (2014). The impact of roads on the demography of grizzly bears in Alberta. PloS One, 9(12), e115535.

Brannon, R. D., Mace, R. D., & Dood, A. R. (1988). Grizzly bear mortality in the northern Continental Divide ecosystem, Montana. Wildlife Society Bulletin, 16(3), 262-269.

Eberhardt, L. L., Blanchard, B. M., & Knight, R. R. (1994). Population trend of the Yellowstone grizzly bear as estimated from reproductive and survival rates. Canadian Journal of Zoology, 72(2), 360-363.

Garshelis, D. L., Gibeau, M. L., & Herrero, S. (2005). Grizzly bear demographics in and around Banff National Park and Kananaskis country, Alberta. The Journal of Wildlife Management, 69(1), 277-297.

Harris, R. B., Schwartz, C. C., Haroldson, M. A., & White, G. C. (2006). Trajectory of the Yellowstone grizzly bear population

under alternative survival rates. Wildlife Monographs, (161), 44-55.

Hovey, F. W., & McLellan, B. N. (1996). Estimating population growth of grizzly bears from the Flathead River drainage using computer simulations of reproduction and survival rates. Canadian Journal of Zoology, 74(8), 1409-1416.

Kasworm , W. F., Radant, T. G., Tesiberg, J. E., Welander, A., Proctor, M., & Cooley, H. (2018). Cabinet- Yaak Recovery Area 2017 research and monitoring progress report. US Fish & Wildlife Service, Missoula, Montana.

Kasworm, W. (2018). Selkirk/Cabinet-Yaak IGBC Subcommittee, meeting notes: 2018 research/monitoring update. http://igbconline.org/wp- content/uploads/ 2018/11/181108_SCYE_Mtg_Summary.pdf

Kendall, K. C., Macleod, A. C., Boyd, K. L., Boulanger, J., Royle, J. A., Kasworm, W. F., ... & Graves, T. A. (2016). Density, distribution, and genetic structure of grizzly bears in the Cabinet-Yaak Ecosystem. The Journal of Wildlife Management, 80(2), 314-331.

Ladle, A., Avgar, T., Wheatley, M., Stenhouse, G. B., Nielsen, S. E., & Boyce, M. S. (2018). Grizzly bear response to spatio-temporal variability in human recreational activity. Journal of Applied Ecology.

Mace, R. D., Carney, D. W., Chilton-Radandt, T., Courville, S. A., Haroldson, M. A., Harris, R. B., ... & Schwartz, C. C. (2012). Grizzly bear population vital rates and trend in the

Northern Continental Divide Ecosystem, Montana. The Journal of Wildlife Management, 76(1), 119-128.

21

Mattson, D. J. (2019a). Effects of pedestrians on grizzly bears: An evaluation of the effects of hikers, hunters, photographers, campers, and watchers with reference to the proposed Pacific Northwest Trail. Grizzly Bear Recovery Project, Report GBRP-2019-3.

Mattson, D. J. (2019b). Effects of trains and railways on grizzly bears: An evaluation of the effects of increased train traffic on the Burlington Northern Santa Fe and Montana Rail-Link Railways, Montana- Idaho. Grizzly Bear Recovery Project, Report GBRP-2019-1.

Mattson, D. J., & Merrill, T. (2004). A model-based appraisal of habitat conditions for grizzly bears in the Cabinet–Yaak region of Montana and Idaho. Ursus, 15(1), 76-90.

McCall, B. S., Mitchell, M. S., Schwartz, M. K., Hayden, J., Cushman, S. A., Zager, P., & Kasworm, W. F. (2013). Combined use of mark-recapture and genetic analyses reveals response of a black bear population to changes in food productivity. The Journal of Wildlife Management, 77(8), 1572-1582.

McLellan, B. N., & Hovey, F. W. (2001). Habitats selected by grizzly bears in a multiple use landscape. The Journal of Wildlife Management, 65(1), 92-99.

McLellan, B. N. (2015). Some mechanisms underlying variation in vital rates of grizzly bears on a multiple use landscape. The Journal of Wildlife Management, 79(5), 749-765.

Proctor, M. F., Paetkau, D., Mclellan, B. N., Stenhouse, G. B., Kendall, K. C., Mace, R. D., ... & Wakkinen, W. L. (2012). Population fragmentation and inter-ecosystem movements of grizzly bears in western Canada and the northern United States. Wildlife Monographs, 180(1), 1-46.

Proctor, M. F., Nielsen, S. E., Kasworm, W. F., Servheen, C., Radandt, T. G., Machutchon, A. G., & Boyce, M. S. (2015). Grizzly bear connectivity mapping in the Canada–United States trans-border region. The Journal of Wildlife Management, 79(4), 544-558.

Proctor, M. F., Lamb, C. T., & MacHutchon, A. G. (2017). The grizzly dance between berries and bullets: relationships among bottom-up food resources and top-down mortality risk on grizzly bear populations in southeast British Columbia. Trans-border Grizzly Bear Project, Kaslo, British Columbia, Canada, http://transbordergrizzlybearproject.ca/research/publications.html.

Proctor, M. F., McLellan, B. N., Stenhouse, G. B., Mowat, G., Lamb, C. T., & Boyce, M. S. (2018). Resources roads and grizzly be4ars in British Columbia and Alberta, Canada. Trans-border Grizzly Bear Project, Kaslo, British Columbia, Canada, http://transbordergrizzlybearproject.ca/research/publications.html.

Wakkinen, W. L., & Kasworm, W. (1997). Grizzly bear and road density relationships in the Selkirk and Cabinet-Yaak recovery zones. US Fish and Wildlife Service, Kalispell, Montana.

Wakkinen, W. L., & Kasworm, W. F. (2004). Demographics and population trends of grizzly bears in the Cabinet–Yaak and Selkirk Ecosystems of British Columbia, Idaho, Montana, and Washington. Ursus, 15(1), 65-76.

Waller, J. S., & Mace, R. D. (1997). Grizzly bear habitat selection in the Swan Mountains, Montana. The Journal of Wildlife Management, 61(4), 1032-1039.

The Forest Service responded:

Effects of proposed activities on grizzly bears and grizzly bear habitat are disclosed on pages 36-43 of the updated EA. Project compliance with forest plan components is displayed within the updated EA (including design features) and in the forest plan consistency document (project file exhibit R-1).

Road closures will be inspected upon completion of project activities and effectiveness of closures will be monitored in the future through the FNF's annual closure device monitoring. Research has not demonstrated that high-intensity-use nonmotorized trails significantly impact grizzly bear populations or that there are areas of significantly higher mortality risk near high- intensity-use non-motorized trails. The Biennial Monitoring Evaluation Report for the Flathead

National Forest (2019-2020) showed that, overall, 92% of road closure devices forest-wide were found to be effective at restricting unauthorized public use (project file exhibit R-30 pp. 58-59).

The NCDE Conservation Strategy was incorporated into the 2018 revised forest plan. The NCDE Conservation strategy is an interagency memorandum of understanding which coordinated strategies, standards, and guidelines developed for managing the grizzly bear population, human-grizzly bear conflicts, and grizzly bear habitat to ensure their continued conservation in the NCDE.

Since road closure violations are pervasive throughout the project area and the Forest, the FNF is in violation of not only the Forest Plan but also the big game security standards.

It is fair to assume that there are many more violations that regularly occur and are not witnessed and reported. It is also fair to assume that you have made no effort to request this available information from your own law enforcement officers, much less incorporate it into your analysis. Considering your own admissions that road density is the primary factor that degrades elk and grizzly habitat, this is a material and significant omission from your analysis– all of your ORD and HE calculations are wrong without this information.

The 2016 A19 report, Table 8b, shows the results of closure device monitoring on the Flathead National Forest from 2006

through 2015. This table shows from 3-13 percent of the barrier devices were found to be ineffective in preventing unauthorized use, depending on the year, with an average of 6.9 percent per year from 2006-2015. Since 2011, the average road closure effectiveness has improved, not declined. Since 2011, the average percentage of ineffective closures improved to 5 percent (project file exhibit L-012).

The veracity of the FS's inventory of system and nonsystem ("undetermined" or "unauthorized") roads is at issue here also. This is partly because the FS basically turns a blind eye to the situation with insufficient commitment to monitoring, and also because violations are not always remedied in a timely manner.

The Round Star project would violate the Forest Plan/Access standards, a violation of NFMA because of road closure violations.

The EA does not disclose how many years the existing core ares have provided the habitat benefits assumed under the Forest Plan. As pointed out, some has been lost (due to "private infrastructure development") and we're not told of other likely and for see able reductions.

The EA does not take a hard look as road closure violations. It also shows the inadequacy of Forest Plan road density metrics.

Have you closed or obliterated all roads that were promised to be closed or obliterated in the Travel Plan? Or, are you still waiting for funds to close or obliterate those roads? This distinction matters because you cannot honestly claim that you are meeting road density standards promised by the Travel Plan if you have not yet completed the road closures/obliterations promised by the Travel Plan. Furthermore, as noted above, you have a major problem with recurring, chronic violations of the road closures created by the Travel Plan, which means that your assumptions in the Travel Plan that all closures would be effective has proven false. For this reason, you cannot tier to the analysis in the Travel Plan because it is invalid.

Christensen et al (1993) states: "Any motorized vehicle use on roads will reduce habitat effectiveness. Recognize and deal with all forms of motorized vehicles and all uses, including administrative use." Please disclose this to the public and stop representing that roads closed to the public should not be included in habitat effectiveness calculations. The facts that (a) you are constructing or reconstructing over 13.3 miles of new system roads and 5.3 miles of temporary roads for this project, (b) you have problems with recurring illegal use, which means that your conclusion that this Project will have no effect on open

road density or habitat effectiveness is implausible to the point of being disingenuous. You cannot exclude these roads simply because you say they are closed to the public. Every road receiving motorized use must be included in the HE calculation. You must consider all of this road use in order to take a hard look that is fully and fairly informed regarding habitat effectiveness. In the very least you must add in all "non-system" roads, i.e. illegal roads, as well as recurring illegal road use (violations) in your ORD calculations.

The Round Star project did not adequately analyze the cumulative effects on grizzly bears of the Round Star project and other cumulative effects on grizzly bears.

The Round Star project fails to adequately distinguish between and quantify the risks to grizzly bears and other wildlife by decommissioned, abandoned, temporary, open, gated, impassable, and barricaded roads. As a result, it draws arbitrary and capricious conclusions to support the building and rebuilding of more roads and culvert crossings while claiming 2011 grizzly bear habitat conditions will somehow be retained. Moreover, the Round Star project builds and rebuilds roads in order to support specious logging and other "vegetation management" that will not protect neighboring structures from

fire and will instead make the fire risk situation worse. Nor will the project "improve the diversity and resilience of terrestrial ecosystems and vegetation." It will instead degrade the habitat and habitat security for grizzly bear, lynx and wolverine, among other wildlife species.

On the whole, the Round Star project does not "maintain the on-the-ground [2011] conditions that have contributed to the growth and expansion of the NCDE grizzly bear population," as required by the 2018 Forest Plan (see the 10/31/17 Biological Assessment on the revised Forest Plan, at 127). Nor does it provide the protections necessary to sustain wolverine, a species once again proposed for ESA listing. This is a violation of the Administrative Procedures Act, the National Environmental Policy Act, the National Forest Management Act, the Endangered Species Act, and the Clean Water Act.

FW-STD-IFS-03 really is nothing more than an attempt to water down the true impacts of increased road access for logging and other projects. What the bears experience is an immediate and years-long impact from increased motorized access, not a 'running 10- year average. The actual impacts of using gated roads for motorized project activities goes unaccounted for as what should be continued increases in Open Road Density. The

Forest Service's inability to adequately explain how all this works is testament to the fact it is one big scam for denying grizzly bears adequate habitat security while claiming the opposite.

Key Findings in Judge Molloy's June 24, 2021, Opinion and Order

We present here a few of the key findings in Judge Molloy's Order, followed by an explanation of how this affects public review of the Project:

"Plaintiffs succeed on their ESA claims related to grizzly bears: that the Revised Plan is

---

arbitrary and capricious to the extent it did not consider the impacts of its departure from Amendment 19's road density and reclamation standards, did not consider the impact on the entire grizzly population, did not adequately explain the adoption of the 2011 access conditions, and adopted a flawed surrogate in its take statement concerning grizzly bears. Plaintiffs also succeed on the narrow argument that departing from Amendment 19's culvert removal requirements violated the ESA as it relates to bull trout. Plaintiffs also succeed on their ESA claim that the Forest Service improperly relied on the flawed aspects of the 2017 BiOp." (p 11-12, emphasis added)

"But, as Plaintiffs note, the baseline was established in 2011 while Amendment 19 was in effect. FS-052052. Consequently, though the Fish and Wildlife Service did not need to directly compare Amendment 19 with the Revised Plan, it did need to consider whether the Revised Plan would have an effect on the 2011

baseline, which was the product of the 1986 Forest Plan and its amendments, including Amendment 19." (p 21)

"In other words, are 'closure devices' an 'important aspect of the problem' to be addressed by the Revised Plan? The answer is yes." (p 22)

"This [A19] 'reclaimed road' standard is the standard underlying the 2011 baseline. See FS-052052. The Revised Plan replaced the 'reclaimed road' standard with an 'impassable road' standard . . . Thus, the science indicates that, even where 'permanent barriers' are used, road closures may be ineffective and use may occur or continue. Both the Swan View Coalition Study and the Forest Service Study support that argument . . . Fish and Wildlife Service's failure to consider the effect of ineffective road closures was arbitrary and capricious . . . Fish and Wildlife Service violated the ESA by not considering the impact of ineffective road closures in its 2017 BiOp." (p 22-25)

"The scientific evidence does not support the Revised Plan's shift away from mandatory culvert removal, particularly since the Fish and Wildlife Service endorsed culvert removal as one of the most effective bull trout protection tools just two years prior to the 2017 BiOp." (p 25-26)

"The Fish and Wildlife Service concluded that '[r]oad decommissioning reduces the long-term risk of sediment delivery to streams from roads and roadside ditches through reducing culvert failures and landslides,' FWS- 001936-37, but road decommissioning under the Revised Plan does not include mandatory culvert removal, see FS-052079 (defining 'impassable' road) . . . it is inexplicable why, two years after the Recovery Plan, the Fish and Wildlife Service determined that culvert removal is no longer required." (p 27-28)

“For example, one of the Revised Plan's objectives is to decommission or place into storage 30 to 60 miles of road over roughly the next 15 years, which the Fish and Wildlife Service avers will have the effect of improving watershed conditions by decreasing road density. FWS-00 193 7 (citing Guideline FW-OBJ-IFS-01). This Guideline does not mention culverts.” (page 28)

“Because the 2015 conclusion that road decommissioning, which included culvert removal, was an effective sedimentation reduction measure, the Fish and Wildlife Service has not explained its conclusion just two years later that culvert removal was not required on decommissioned roads . . . the record supports Plaintiffs' arguments that the Fish and Wildlife Service's abandonment of the culvert removal requirement was arbitrary and capricious.” (p 29)

“While the Service did provide a thorough overview of the status of the grizzly bear species in the United States, it failed to analyze how the Revised Plan would affect grizzly bears outside of the NCDE.” (p 31)

“Plaintiffs persuasively argue that the Service cannot arbitrarily pinpoint 2011 as the point in time at which to attach significance to the NCDE population. The mere fact that the population was increasing from 2004-2011 does not justify moving away from the existing management requirements of Amendment 19. In effect, by recognizing that Amendment 19 laid the foundation for recovery of the NCDE population and then using that recovery as justification for getting rid of the existing access conditions, the Fish and Wildlife Service eschews Amendment 19 precisely because it was working. This action is arbitrary and capricious. C.f, Shelby Cty., Ala. v. Holder, 510 U,S, 529, 590 (2013) (‘Throwing out preclearance when it has worked and is

continuing to work to stop discriminatory changes is like throwing away your umbrella in a rainstorm because you are not getting wet.') (Ginsburg, J., dissenting). The Fish and Wildlife Service violated the ESA by arbitrarily adopting the 2011 access conditions as a target for protecting grizzly bears." (p 34-35)

"Plaintiffs successfully challenge all three deficiencies they identify concerning the road density and secure core habitat surrogate. The surrogate trigger is ambiguous, lacks a deadline, and the supposed requirement to maintain 2011 access conditions is not linked to a requirement in the Revised Plan." (p 41)

"Plaintiffs persuasively argue that the surrogate is inadequate because there is no requirement in the Revised Plan to return to 2011 access conditions. As explained above, the 2011 access conditions were the result of Amendment 19's road density requirements. The Revised Plan does not incorporate those requirements, so it is unclear how the 2011 access conditions ensure that 'temporary changes' will not be indefinite. **(Cf.** Doc. 91 at 36.) As a result, the road density and secure core habitat surrogate violates the ESA." (p 43)

"[Plaintiffs] allege that the Service violated the ESA by relying on the flawed 2017 BiOp without satisfying its independent obligation to consider how the Revised Plan could jeopardize grizzly bears, bull trout, and bull trout habitat. (Doc. 77 at 48 (citing Save our Cabinets, 255 F. Supp. 3d at 1063).) Plaintiffs are correct . . . insofar as the 2017 BiOp was invalid based on its determinations that the Revised Plan's shift away from Amendment 19' s road closure requirements would not jeopardize grizzly bears, the non-mandatory culvert removal aspect of the Revised Plan would not jeopardize bull trout, the Revised Plan considered its effect on the nationwide grizzly

population, the adoption of the 2011 access conditions was reasonable, and the road density and secure core surrogate for grizzly bears was adequate.

As discussed above, the 2017 BiOp did not consider the impact of ineffective road closures on the 2011 baseline population for grizzly bears, nor did it consider the effects of the Revised Plan on the grizzly species as a whole. The BiOp's road density and secure core surrogate concerning grizzly bears is also deficient, as described above. Such failures render the 2017 BiOp faulty in its conclusions concerning grizzly bears. See All. for Wild Rockies, 412 F. Supp. at 1204 (finding that biological opinion was flawed because the Service failed to consider temporary increases in motor route density as a result of ineffective road closures).

The BiOp also did not consider the effect on bull trout of withdrawing the mandatory culvert removal requirement. The problem with the Forest Service's reliance on the 2017 BiOp' s conclusion that the less stringent culvert removal plan would not significantly adversely affect bull trout is magnified in light of the Recovery Plan, which identified culvert removal as an aspect of successful bull trout recovery just two years before the 2017 BiOp and three years before the Revised Plan . . .

In conclusion, the Forest Service violated the ESA to the extent it relied on the BiOp's flawed road reclamation determinations and road density surrogate." (p 52-53)

As we have argued in previous comment letters to the Flathead and here, the Forest Plan and this Project are similarly flawed for abandoning A19 management, adopting the notion of "impassable" roads that don't count in TMRD and need not have

their stream-aligned culverts removed, and by adopting a flawed 2011 baseline. This allows the permanent expansion of the road and culvert system in grizzly bear and bull trout habitat while not appearing to increase them over an arbitrarily defined 2011 baseline, the parameters of which contribute to the surrogates and triggers being ruled unlawful by Judge Molloy. We have no way to compare the Project to a newly revised Plan, its BiOp and its ITS that remedy these problems because they do not yet exist.

We are not encouraged that the Flathead has failed to learn lessons from our numerous project Objections, Plan Objection and Judge Molloy's Order. The Scoping Notice says nothing about how stream crossings and culverts on newly constructed and reconstructed roads will be managed, yet it shows a number of such roads that cross streams will be managed in the "impassable" status essentially rejected by Judge Molloy for not requiring the removal of culverts.

Moreover, the Project builds road in grizzly bear Secure Core, but does not discuss how this will maintain the 2011 Baseline or existing conditions. As noted above, Judge Molloy rejected the 2011 Baseline scheme in part because the Forest Plan does not guarantee that changes in road densities and Secure Core won't become permanent.

REMEDY

Choose the No Action Alternative or you must either complete new NEPA analysis for the Travel Plan on this issue or provide that new analysis in the NEPA analysis for this Project. Either way, you must update your open road density calculations to include all roads receiving illegal use.

Creating barriers on roads to prevent motorized access will not affect recreational use, including hiking, hunting, bike riding, and berry picking, for example, Where are these impacts to grizzly bear displacement and mortality risk addressed?

The agency failed to define total road densities at present, what these will be during the 5 years of project implementation, and what these will be once the project is completed. So the impacts to grizzly bear displacement and mortality risk are not identified to the public.

In Case 9:19-cv-0056-DWM the United States District Court for the District of Montana ruled on 6/24/21 that the Flathead Forest Plan was illegal because the Fish and Wildlife Service violated the ESA by not considering the impacts of ineffective road closures in its 2017 BiOp. The court also ruled that the FWS violated the ESA by using a flawed incidental take statement for grizzly bears and the core density standards and secure core habitat surrogate violate the ESA.

The Revised Forest Plan and the Round Star project weakens grizzly bear habitat protections by allowing new roadbuilding

throughout the Flathead National Forest, without meaningful and permanent reclamation of other roads elsewhere in the Forest to compensate for the new road construction. This new management direction is a significant departure from former Forest Plan Amendment 19, which required the Forest Service to reclaim roads according to stringent requirements such that a reclaimed road would "no longer function as a road or trail." Amendment 19 EA.

The New roadbuilding in the Round Star project without meaningful reclamation to ensure no net increase in the road system presents a significant threat to grizzly bears, because motor vehicle users and other recreationists can trespass on the supposedly "impassable" roads and thus encroach on grizzly bear habitat. Further, even unused roads cause detrimental impacts to grizzly bear survival and reproduction, because grizzly bears are displaced from roaded habitat, regardless of whether the roads receive public or administrative use. However, in concluding that the Revised Forest Plan will not jeopardize the species, FWS's Revised Biological Opinion failed to adequately examine adverse impacts to grizzly bears from unauthorized motorized use on roads closed according to the Revised Forest Plan's weaker closure standards; failed to consider the displacement impacts caused by roads even when they do not receive motorized use; and failed to account for increased roadbuilding enabled by the Forest Service's abandonment of stringent road-reclamation requirements.

The Forest Service has failed to rationally determine, based on a consideration of all relevant factors, whether the Revised Forest Plan's new management direction will jeopardize the survival of

grizzly bears in the Flathead and therefore the Round Star project is illegal.

The FWS's Revised Biological Opinion is therefore arbitrary, capricious, and not in accordance with law, and should be set aside pursuant to the ESA and APA and therefore can not be used as a basis for the Round Star Project.

We wrote in our comments:

Economics. The economic analysis is incomplete and does not fully explain all of the costs of the project.

The Forest Service responded:

The economic analysis is summarized in the updated EA (p. 12), complete feasibility and efficiency analyses are included as project file exhibits (available upon request).

The Forest Service makes the public send a FOIA request for the project file and has been labeling the requests complicated requests which means they have 30 working says to respond. This is longer than then time period given to object. Therefore the Round Star project is in violation of NEPA and the APA not only for not responding this question but the Decision Notice stated several times that the public should look at the project file which they are not making available to the public.

REMEDY

Withdraw the DDN and FONSI and write an EIS that fully complies with the law or choose the No Action Alternative.

We wrote in our comments:
A new study by Dominick A. DellaSala et al. found that reviewed 1500 wildfires between 1984 and 2014 found that actively managed forests had the highest level of fire severity. Please find DellaSala et al. attached. While those forests in protected areas burned, on average, had the lowest level of fire severity. In other words, the best way to reduce severe fires is to protect homes from the Home out in the Home Ignition Zone, not log forests outside the home ignition zone, therefore the purpose and need of the Round Star is not valid.

The best available science shows that Commercial Logging does not reduce the threat of Forest Fires. What best available science supports the action alternatives?

Please find Schoennagel et al (2004) attached.

Schoennagel states: "we are concerned that the model of historical fire effects and 20th-century fire suppression in dry ponderosa pine forests is being applied incorrectly across all Rocky Mountain forests, including where it is inappropriate.

Schoennagel et al (2004) states: "High-elevation subalpine forests in the Rocky Mountains typify ecosystems that experience infrequent, high-severity crown fires []. . . The most extensive subalpine forest types are composed of Engelmann spruce (Picea engelmannii), subalpine fir (Abies lasiocarpa), and lodgepole pine (Pinus contorta), all thin- barked trees ea- sily killed by fire. Extensive stand-replacing fires occurred historically at long intervals (i.e., one to many centuries) in subalpine forests, typically in association with infrequent high-pressure blocking

systems that promote extremely dry regional climate patterns."

Schoennagel et al (2004) states: "it is unlikely that the short period of fire exclusion has significantly altered the long fire intervals in subalpine forests. Furthermore, large, intense fi- res burning under dry conditions are very difficult, if not impossible, to suppress, and such fires account for the majority of area burned in subalpine forests.

Schoennagel et al (2004) states: "Moreover, there is no consistent relationship between time elapsed since the last fire and fuel abundance in subalpine forests, further undermining the idea that years of fire suppression have caused unnatural fuel buildup in this forest zone."

Schoennagel et al (2004) states: "No evidence suggests that spruce–fir or lodgepole pine forests have experienced

sub- stantial shifts in stand structure over recent decades as a re- sult of fire suppression. Overall, variation in climate rather than in fuels appears to exert the largest influence on the size, timing, and severity of fires in subalpine forests []. We conclude that large, infrequent stand replacing fires are 'business as usual' in this forest type, not an artifact of fire suppression.".

Schoennagel et al (2004) states: "Contrary to popular opinion, previous fire suppression, which was consistently effective from about 1950 through 1972, had only a minimal effect on the large fire event in 1988 []. Reconstruction of historical fires indicates that similar large, high-severity fires also occurred in the early 1700s []. Given the historical range of variability of fire regimes in high-elevation subalpine fo- rests, fire behavior in Yellow- stone during 1988, although se- vere, was nei- ther unusual nor surprising."

Schoennagel et al (2004)(emphasis added) states: "Mechanical fuel reduction in sub- alpine forests would not represent a restoration treatment but rather a departure from the natural range of variability in stand structure."

Schoennagel et al (2004) states: "Given the behavior of fire in Yellowstone in 1988, fuel reduction projects probably will not substantially reduce the frequency, size, or severity of wildfires under extreme weather conditions."

Schoennagel et al (2004) states: "The Yellowstone fires in 1988 revealed that variation in fuel conditions, as measured

by stand age and density, had only minimal influence on fire behavior. Therefore, we expect fuel- reduction treatments in high-elevation forests to be generally unsuccessful in reducing fire frequency, severity, and size,

given the overriding importance of extreme climate in controlling fire regimes in this zone. Thinning also will not restore subalpine forests, because they were dense historically and have not changed significantly in re- sponse to fire suppression. Thus, fuel- reduction efforts in most Rocky Mountain sub- alpine forests probably would not effectively mitigate the fire hazard, and these efforts may create new ecological problems by moving the forest structure outside the historic range of variability."

Likewise, Brown et al (2004) states: "At higher elevations, forests of subalpine fir, Engelmann spruce, mountain hem- lock, and lodgepole or whitebark pine predominate. These forests also have long fire return intervals and contain a high proportion of fire sensitive trees. At periods averaging a few hundred years, extreme drought conditions would prime the- se forests for large, severe fires that would tend to set the forest back to an early

successional stage, with a large carry- over of dead trees as a legacy of snags and logs in the regenerating forest . . . . natural ecological dynamics are largely preserved because fire suppression has been effective for less than one natural fire cycle. Thinning for restoration does not appear to be appropriate in these forests. Efforts to manipulate stand structures to reduce fire hazard will not only be of limited effectiveness but may also move systems away from pre-1850 conditions to the detriment of wildlife and water- sheds." "Fuel levels may suggest a high fire 'hazard' under conventional assessments, but wildfire risk is typically low in these settings."

Likewise, Graham et al (2004) states: "Most important, the fire behavior characteristics are strikingly different for cold (for example, lodgepole pine, Engelmann

spruce, subalpine fir), moist (for example, western hemlock, western redcedar, western white pine), and dry

forests. Cold and moist forests tend to have long fire-return intervals, but fires that do occur tend to be high-intensity, stand-replacing fires. Dry forests historically had short intervals between fi- res, but most important, the fires had low to moderate severity."

According to Graham et al (2004), thinning may also increase the likelihood of wildfire ignition in the type of forests in this Project area: "The probability of ignition is strongly rela- ted to fine fuel moisture content, air temperature, the amount of shading of surface fuels, and the occurrence of an ignition source (human or lightning caused) . . . . There is generally a warmer, dryer microcli-mate in more open stands (fig. 9) compared to denser stands. Dense stands (canopy cover) tend to provide more shading of fuels, keeping relative humidity higher and air and fuel temperature lower than in more open stands. Thus, dense stands tend to maintain higher surface fuel

moisture contents com- pared to more open stands. More open stands also tend to allow higher wind speeds that tend to dry fuels compared to dense stands. These factors may in- crease probability of ignition in some open canopy stands com- pared to dense canopy stands."

The Forest Service did not respond to my comments in violation of NEPA. The project is also in violation of NFMA and the APA for not meeting the purpose and need.

REMEDY

Withdraw the DDN and FONSI and write an EIS that fully complies with the law or choose the No Action Alternative.

We wrote in our comments:
How will the project affect climate change?

The Forest Service responded:
A detailed analysis of climate change was not included in the environmental assessment because the forest scale is the most appropriate scale for analyzing these effects. Therefore, the project tiers to the detailed analysis for climate change in the forest plan final EIS, alternative B modified (USDA 2018c).

For more information, please refer to appendix 7 of the final EIS for the forest plan, including the climate change related response to comments (pp. B-127 through B-131).

The Round Star is in violation of NEPA, NFMA, and the APA for not responding to our question about climate change.

The EA and the DDN do not demonstrate that the project will meet the Purpose and Need in violation of NEPA, ESA, NFMA, and the APA.

Please see the attached paper by Dr. William Baker titled: "Are High-Severity Fires Burning at Much Higher Rates Recently than Historically in Dry-Forest Landscapes of the Western USA?"

Dr. Baker writes: "Programs to generally reduce fire severity in dry forests are not supported and have significant adverse ecological impacts, including reducing habitat for native species dependent on early-successional burned patches and decreasing landscape heterogeneity that confers resilience to climatic change."

Dr. Baker concluded: "Dry forests were historically renewed, and will continue to be renewed, by sudden, dramatic, high-

intensity fires after centuries of stability and lower-intensity fires.”

Based on Dr. Baker’s paper, the proposed action will not meet the purpose and need of the project. Baker writes on p. 20:

“Management issues

The evidence presented here shows that efforts to generally lower fire severity in dry forests for ecological restoration are not supported.”

Dr. Baker’s paper is the best available science. Please explain why this project is not following the best availablescience. The Draft Decision Notice is in violation of NEPA.

Remedy, choose the No Action Alternative or write an EIS that com- plies with the law.

In “Fire Ecology in Rocky Mountain Landscapes” by William Baker, (which I am sending a copy of via U.S. mail) Dr. Baker writes on page 435, “ ...a prescribed fire regime that is too frequent can reduce species diversity (Laughlin and Grace 2006) and favor invasive species (M.A. Moritz and Odion 2004). Fire that is entirely low severity in ecosystems that historically ex- perience some high-severity fire may not favor germination of fire- dependent species (M.A. Moritiz and Odion 2004) or

provide habitat key animals (Smucker, Hutto, and Steele 2005)." Baker continues on page 436: "Fire rotations equal the average mean fire interval across a landscape and are appropriate intervals at which individual points or the whole landscape is burned. Composite fire intervals underestimate mean fire interval and fire rotation (chap 5) and should not be used as prescribed burning intervals as this would lead to too much fire and would likely lead to adversely affect biological diversity (Laughlin and Grace 2006)."

Please find (Laughlin and Grace 2006) attached.

Dr. Baker estimates the high severity fire rotation to be 135 - 280 years for lodgepole pine forests. (See page 162.). Baker writes on page 457-458 of Fire Ecology in Rocky Mountain Landscapes:
"Fire rotation has been estimated as about 275 years in the Rockies as a whole since 1980 and about 247 years in the northern Rockies over the last century, and both figures are near the middle between the low (140 years) and high (328 years) estimates for fire rotation for the Rockies under the HRV (chap. 10). These estimates suggest the since EuroAmerican settlement, fire control and other activities may have reduced fire somewhat in particular places, but a general syndrome of fire exclusion is lacking. Fire exclusion also does not accurately characterize the

effects of land users on fire or match the pattern of change in area burned at the state level over the last century (fig 10.9). In contrast, fluctuation in drought linked to atmospheric conditions appear to match many state-level patterns in burned area over the last century. Land uses that also match fluctuations include logging, livestock grazing, roads and development, which have generally increased flammability and ig- nition at a time when the climate is warming and more fire is com- ing."

REMEDY

Withdraw the DDN and FONSI and write an EIS that fully complies with the law or choose the No Action Alternative.

Sincerely yours,
Mike Garrity
/s/
(Lead Objector)
Executive Director
Alliance for the Wild Rockies
P.O. Box 505
Helena, MT 59624
406-459-5936

And for
Sara Johnson
Native Ecosystems Council
P.O. Box 125
Willow Creek, MT 59760

And for

Steve Kelly, Director

Council on Wildlife and Fish

(Formally known as

Montana Ecosystems Defense Council)

P.O. Box 4641

Bozeman, MT 59772

And for

Jason L. Christensen – Director

Yellowstone to Uintas Connection

P.O. Box 363
Paris, Idaho 83261

jason@yellowstoneuintas.org

435-881-6917