



May 15, 2015

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Forest Plan Revision  
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*Sent via email and certified mail this date*

**Re: Notice of Intent to revise the Flathead National Forest Land and Resource Management Plan and draft an amendment incorporating portions of the NCDE Grizzly Bear Conservation Strategy, and prepare an associated Environmental Impact Statement.**

Dear Ms. LeBrecque:

We appreciate the opportunity to submit the attached comments in response to the Notice of Intent to revise the Flathead National Forest Land and Resource Management Plan and prepare an associated Environmental Impact Statement.

WildEarth Guardians is a non-profit organization dedicated to maintaining, protecting, and restoring the native ecosystems of Montana and the American West, with some 66,500 supporters. WildEarth Guardians has an organizational interest in the proper and lawful management of the Flathead National Forest. Our members, staff, and board members participate in a wide range of hunting, fishing and other recreational activities on the Flathead National Forest. Upon reviewing this Proposed Action of the Revised Forest Plan, we believe that such a revision—and the resulting environmental and legal consequences—will likely impact the interests of WildEarth Guardians' members by threatening the survival of fish, wildlife and plants on the Flathead, increasing the possibility of recreational user conflicts, and having other significant and lasting impacts on the environment.

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## I. Introduction

WildEarth Guardians submits this letter to provide the U.S.D.A. Forest Service, Flathead National Forest Office (“Flathead NF”) with comments on the *Proposed Action—Revised Land and Resource Management Plan for the Flathead National Forest, dated March 2015* (“Proposed Action” or “PA”). The Flathead NF’s scoping notice initiates the environmental review process under the National Environmental Policy Act (“NEPA”) for the Proposed Action. The Flathead NF published a notice of intent to prepare an environmental impact statement in the Federal Register on March 6, 2015, initiating the 60-day comment period on the Proposed Action to revise the Flathead Forest Plan. The original closing date for that 60-day comment period was May 5, 2015, but the Forest Service extended the comment period for an additional 10 days to May 15, 2015. 80 Fed. Reg. 24,894 (May 1, 2015). Guardians’ comments are thus timely filed within the extended comment period.

In its Revised Forest Plan, the Flathead NF includes management direction to support a variety of proposed and possible actions that may occur on the Flathead NF over the next 15 years, or life of the Proposed Action. The Forest Service describes the purpose of the Proposed Action as “to have an integrated set of plan direction . . . to provide for social, economic, and ecological sustainability and multiple uses of the Flathead NF lands and resources.” (PA at 2).

While Guardians generally supports revisiting and revising the Flathead Forest Plan to support ecological, social, and economic sustainability as a goal for management of National Forest lands, we remain very concerned that the Flathead Proposed Action falls significantly short of legally required management directions. Guardians’ concerns regarding the Flathead Proposed Action are detailed below.

The Flathead is one of the largest wild areas in the lower 48 states. (PA at 3). Located in the heart of the Crown of the Continent Ecosystem, the Flathead contains a network of wilderness and roadless areas that border Glacier National Park and a remote portion of British Columbia. (PA at 3). The forest’s unique size and location highlight the Forest’s important role as a connector of habitats and core populations of associated wildlife. (PA at 3). The area is home to one of the most intact populations of medium to large carnivores in the contiguous United States and is inhabited by hundreds of species of native mammals, birds, fish, reptiles, amphibians and invertebrates. (PA at 3-4). Carnivores inhabiting the Forest include the threatened Canada lynx as well as the grizzly

bear and wolverine. (PA at 4). The Forest is part of Canada lynx critical habitat unit 3, Northern Rocky Mountain Region, with close to 1.8 million acres of habitat on Flathead NFS lands. (PA at 4). One of the largest populations of wolverines in the lower 48 states inhabits the Forest and surrounding portions of the Crown of the Continent Ecosystem. (PA at 4). Bull trout and westslope cutthroat trout migrate as adults from Flathead Lake to natal streams on forest to spawn. (PA at 4).

## **II. General Comments about the Planning Process**

### **A. Consider the Cited Studies and Articles Best Available Science**

While certainly not exhaustive, we believe the information contained in this letter and its appendices represents the best available science, which the 2012 planning rule requires the agency to utilize.<sup>1</sup> We ask that you regard it as such, or explain clearly why you disagree while providing the scientific basis for your analysis and conclusions.

### **B. We Urge the Flathead NF to Use Standards in the Forest Plan**

We urge the Flathead NF to establish enforceable standards in the forest plan because it will ensure accountability and better environmental protection. Martin Nie (2014), a professor of forest policy at the University of Montana and a member of the national FACA committee overseeing implementation of the 2012 planning rule, recommends that the Forest Service utilize standards in second-generation forest plans:

“Not only do law and regulation require standards, but they can also lead to efficiencies in forest planning. They can also be advantageous from a political perspective, as they resonate with a cross section of planning participants, most of whom want a greater degree of certainty, structure, and predictability in forest management.”<sup>2</sup>

We agree and encourage the Flathead NF to establish standards in its revised forest plan. In our scoping letter, we recommend several standards for the agency to adopt.

## **III. Grizzly Bear Management and Amendments**

This process is somewhat unique, as it not only proposes to revise the Flathead Forest Plan, but it also proposes to prepare amendments to the Kootenai, Lolo, Helena, and Lewis & Clark National Forests incorporating relevant direction from the Northern Continental Divide Ecosystem (“NCDE”) Grizzly Bear Conservation Strategy.

The Forest is part of the Northern Continental Divide Ecosystem (NCDE) for grizzly bears. (PA at 4). The NCDE is one of seven grizzly bear ecosystems in the continental United States, of which five are known to be occupied. (PA at 4). The Flathead River in British Columbia, the North Fork of the Flathead River in Montana, as well as drainages on the east-side of the Continental Divide which are

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<sup>1</sup> 36 C.F.R. § 219.3 (agency “shall use the best available scientific information to inform the planning process” and “shall document how [that] information was used to inform the assessment”).

<sup>2</sup> Nie, Martin and Schembra, Emily. 2014. The Important Role of Standards in National Forest Planning, Law, and Management. *Environmental Law Reporter* 44 ELR 10282.

located in the northwestern portion of the Crown of the Continent Ecosystem, have the highest density of grizzly bears in inland North America. (PA at 4). The Forest is the largest land manager within the NCDE recovery zone, managing approximately 37 percent of NCDE lands. Roughly 1,000 bears are estimated to be within the NCDE. (PA at 4).

In addition to our comments herein, we are also attaching and incorporate comments on the NCDE Draft Conservation Strategy by the Natural Resources Defenses Council. We include comments on the significant flaws of the Grizzly Bear Conservation Strategy Amendments, which, again, are applicable not just to the Flathead Forest Plan, but to all future forest plan amendments that will incorporate the Grizzly Bear Conservation Strategy Amendments.

## **A. Overarching Issues**

### **1. Reliance on the Draft NCDE Conservation Strategy (GBCSA)**

We understand that a key purpose of both the Flathead Forest Plan Revision and Grizzly Bear Amendments on the Kootenai, Lolo, Helena, and Lewis & Clark National Forests is to incorporate elements of the NCDE Grizzly Conservation Strategy (CS), in order to demonstrate the presence of “adequate regulatory mechanisms” to protect grizzlies which, if other threats are also addressed, could allow delisting of the NCDE population Distinct Population Segment (DPS) from the Endangered Species Act to move forward. However, this is based on the assumption that the Draft Conservation Strategy is grounded in “best available science” and adherence to law. It is neither.

First, the U.S. Fish and Wildlife Service (FWS) bases its claim of a “recovered” population on the NCDE’s 1000 grizzlies and 3% annual growth rate. However, population numbers and growth rate are not one of the Endangered Species Acts Section 4 listing and delisting criteria (USFWS 1988). Federal Judge Friedman has ruled that habitat quantity, quality, and sufficiency are the determining factors of recovery, not minimum population and distribution numbers. (*Fund for Animals v. Babbitt*, 903 F Supp. 96, 113,118 (D.D.C. 1995). Dr. Richard Harris, a contributor to the Conservation Strategy, has stated that the 3% growth rate does not meet “the conventional level of statistical certainty” (USFWS 2013).

Second, the ESA’s first listing/delisting criteria is, “the present or threatened destruction, modification, or curtailment of its habitat or range.” Yet long-term, ecosystem-wide grizzly habitat studies have never been conducted in the NCDE, giving the agencies no baseline against which to measure these criteria. In addition, the required Habitat Based Recovery Criteria report has never been produced by FWS (*Fund for Animals v. Babbitt*, 967 F. Supp. 6 (D.D.C. 1997).

Third, the only best available science on grizzly habitat security and motorized access route density is Amendment 19 to the Flathead Forest Plan, (USDA 1995) which was adopted by the other NCDE Forests (USFWS 2007). Yet the Draft Conservation Strategy, based on estimated population of 1000 bears and a 3% growth rate would throw out this science and replace it with whatever road densities were present in the 2011 Baseline Year.

Under the new 2011 Baseline Motorized Access “Standards” we would see the following (USFWS 2013, Appendix 3):

- 31 of 54 BMU Subunits (57%) would violate A19 scientific standards on the Flathead Forest.
- 1 of 3 BMU Subunits (33.3%) would violate A19 of Helena NF.
- 2 of 2 BMU Subunits (100%) would violate A19 on Kootenai NF.

- 8 of 8 BMU Subunits (100%) would exceed A19 on Montana Department of Natural Resources (DNRC) lands. Although DNRC does not technically fall under A19, it does manage more than 500,000 acres in the NCDE, making this lack of security of serious concern.
- Only the Lewis & Clark NF would meet A19 standards.

Fourth, the CS says its objective is “...maintenance of habitat conditions that are compatible with a stable to increasing grizzly bear population” (emphasis added) which is questionable given the following:

- Given a complete lack of long-term habitat research ecosystem-wide, management agencies have no idea what current habitat conditions are.
- Although the current population estimate is 1000, the CS goal is 800 – a 20% decline.
- The current survival rate of Independent Females is 95.2%, while the goal of the CS is >90% survival.
- The current mean annual mortality rate of Independent Males is 13.8% - 15.6%, but the CS would allow 20% with no scientific reference for this increase.

The Draft Conservation Strategy, and any Forest Plan based upon it, make the mistake of assuming that the current 3% growth rate made possible by Endangered Species Act protections and A19 will be possible after habitat standards are weakened and hunting allowed. Nothing could be further from the truth.

Fifth, the Conservation Strategy designates a Management Zone 1 around the Primary Conservation Area (PCA) with the following claimed characteristics:

- “The objective in Zone 1 is continual occupancy by grizzly bears but at expected lower densities than inside the PCA.”
- “In these areas, habitat protections on Federal and Tribal lands will focus on limiting miles of open roads and managing current roadless areas as stepping stones to other ecosystems.”
- Attractant storage rules would be implemented on Federal, Tribal, and most State Lands” (emphasis added).

These Objectives for Zone 1 make the objective of “continual occupancy” nearly impossible because, (1) open road limitations will be based on the new 2011 Baseline standard that has no basis in science; (2) under the new Kootenai Forest Plan to the west, Inventoried Roadless Areas (IRA’s) are systematically denied Recommended Wilderness status with most designated Motorized Backcountry instead (USDA 2015a); (3) Management control of food conditioned grizzlies (Attractants) is the #1 cause of NCDE mortality; (4) the State manages over 500,000 NCDE acres, yet won’t control attractants on all lands.

Moreover, the purpose of Management Zone 2 in the CS is “...to provide the opportunity for grizzly bears, particularly males...to move between the NCDE and adjacent ecosystems...” However, regarding Zone 2 the CS also says, “...there are no habitat standards specifically related to grizzly bears because the objectives in these zones do not require them” and, “The Objective is to maintain existing resource management and recreational opportunities and allow agencies to respond to demonstrated conflicts...” Existing resource management and recreational opportunities are some of the very activities that imperiled the species to begin with.

It is clear that the Draft Conservation Strategy, and any Forest Plan based on it, intend to manage

Zone 2 as a Mortality “Sink”, not a Population “Link.” And while the movement of male grizzlies provides Genetic Connectivity, only female movement results in the Demographic Connectivity that the CS claims, but fails, to provide. Once again, the solution is to base the management of Zone 2 on the known security requirements of grizzlies, and particularly female grizzlies, not on manager preferences.

Although the Draft Conservation Strategy Standard 3 says that Independent Female Mortality will not exceed 10 percent, it contains absolutely no timely consequences for doing so. In fact, despite the fact that grizzlies are one of the slowest reproducing mammals in North America, with female mortalities being especially serious, the CS throws the Precautionary Principle completely out the window: “As an example of the application of the management review triggers, if independent female survival was between .89 and .90 for 12 consecutive 6-year intervals such as 2014-2025, a management review would be triggered” (USFWS 2013) (emphasis added). That is not twelve years before corrective action is taken, it is twelve years before any investigation of causes is even launched. Such a trigger is unacceptably weak.

If approved, the Conservation Strategy would allow NCDE Forests to “temporarily increase” Open Motorized Route Density (OMRD) by 5%; increase Total Motorized Route Density (TMRD) by 3 %, and Reduce Security Core by 2%. This is based upon six National Forest projects – five on the Flathead, and one on the Lolo between 2003 and 2010. And since they occurred at a time when FWS says the NCDE grizzly population “is known to have been increasing” the Service concludes that they must be fine for the entire ecosystem. This sort of “science” has a number of problems. According to Dr. Richard Harris, above, neither population nor trend was known at the time the Draft Strategy was developed. The National Forest projects were not identified so data cannot be checked, or impacts revealed and made subject to public comment. Five of the six projects occurred on just one forest, which is hardly representative of an entire ecosystem. Such “temporary Increases/Decreases” on projects can span five years, with another year for restoration – with “exceptions.” This is not temporary at all. How can the Forest claim a five year project is temporary?

At the recent NCDE Grizzly Subcommittee meeting (5/6/15) the FWS Grizzly Bear Recovery Coordinator Chris Servheen reported that the Final NCDE Conservation Strategy will not be out until the end of 2015. We question the wisdom of NCDE Forests adopting a Draft Conservation Strategy into their plans now with the Final CS at least 7 months away.

## **2. Motorized Access Management & Amendment 19**

Roads have always been and remain a serious threat to grizzlies. The 1993 Grizzly Bear Recovery Plan (USFWS 1993) page 21-22 says:

“Roads 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. It is strongly recommended that road management be given the highest priority within all recovery zones.

The impacts of logging, mining, livestock grazing, and many forms of recreation in grizzly habitat can be mitigated through well-designed management programs. But the presence of open roads in grizzly habitat often leads to increased bear-human contact and conflict, and can ultimately end in grizzly mortality. Accidental shooting, poaching, and habituation through direct human contact and/or food reward all increase with the use of even

secondary, unpaved roads by humans.”

And the Conservation Strategy, at p. 20-21, echoes this basic scientific principle: “Open motorized route density is a predictor of grizzly bear survival on the landscape (Schwartz et al. 2010) and is useful in evaluating habitat potential for, and mortality risk to, grizzly bears (Mace et al. 1996).

The only motorized access standards based on a decade of grizzly research in the NCDE (Mace and Waller 1997) are those of Amendment 19 (A19) to the Flathead Forest Plan (USFS 1995) which have been examined and approved in FWS Biological Opinions (USFWS 1995, 2014).

All existing provisions under Amendment 19 to the current Flathead Forest Plan, and as adopted by other NCDE Forests, must remain in place, and the Forests must move swiftly and effectively to designate, fund, and complete all remaining closure & restoration projects for the following reasons:

- A 19 is the only motorized access management framework in the NCDE that is firmly based upon the Best Available Science as required by law (USFWS 1988). Neither that science, nor that law have changed despite the attempt by the U.S. Fish and Wildlife Service (FWS) to substitute a politically contrived 2011 Baseline system in the Draft Conservation Strategy.
- There is nothing in the Draft Conservation Strategy that prevents the Flathead and other NCDE Forests from taking more protective actions, with a stronger scientific base, than the 2011 Motorized Access Baseline – and A 19 is that more protective action. While the Proposed Action says that A19 will remain in force pending consultation with USFWS on the Conservation Strategy, this does not solve a key problem since it only temporarily delays the unscientific 2011 Baseline from going into effect.
- The current grizzly population of the NCDE, estimated at approximately 1000 bears, reached that milestone due in large part to the increased security provided by Amendment 19 and related measures in other forests. It makes no sense to snatch defeat from the jaws of victory by abandoning this proven success story before it’s completely implemented ecosystem-wide.
- Without a firm grounding in the Best Available Science – or any science at all – the NCDE Draft Conservation Strategy is sure to be challenged in court; delayed for a significant length of time; and is likely to emerge only after major changes. By blindly linking their Forest Plans to a flawed Conservation Strategy, the NCDE Forests guarantee their management will be drifting in the same legal and scientific limbo for years, and may have to undergo those same major revisions before they can be implemented. It’s far better to avoid this by embarking on a wiser path now, grounded in science and law.

The Proposed Action says that the Flathead Forest intends to: “Decommission or place into intermittent stored service 30 to 60 miles of roads.” (PA at 67 - Objectives.) If the figure is an annual decommissioning plan, then we applaud the Forest for a significant improvement. If, however, it means over the life of the plan, that would be biologically and legally unacceptable, and symptomatic of the foot-dragging we have seen over the last three years with decommissioning of 12, 13, and 4 miles annually out of a road system exceeding 3500 miles.

We are concerned that the Flathead’s proposed action allows “intermittent stored service (ISS) roads” to remain in the Forest’s inventory, but does not count them as part of its Total Motorized Route Density (TMRD) as required by A19. This is both legally suspect and eminently unwise. Such

roads can only be removed from TMRD totals if they are fully decommissioned: permanently closed, stabilized, with all bridges and culverts pulled. Furthermore, having such a stealth network of ISS roads that are off the books is a recipe for little maintenance, blocked culverts, and blow-outs into key bull trout habitat streams.

The Forest also plans to: “Complete 100 to 300 miles of reconstruction or road improvement projects.” The Flathead needs to provide specifics regarding the type of reconstruction and improvements referred to here. If these are projects to stabilize failing roads or culverts on key Open roads, reducing siltation into streams, that would be important. However, if this involves roads that should have been closed long ago to meet Amendment 19 objectives, those roads should be immediately closed, stabilized, and decommissioned. We remind the Forest of its existing 126 mile backlog of roads approved for decommissioning but still unfunded.

The Forest unacceptably plans to “Maintain up to 1200 miles of operational maintenance level 2 through 5 roads.” As you know, nationally, the Forest Service has a \$2.9 billion backlog when it comes to maintaining the current system roads and has repeatedly committed to finally “right-sizing” its road network to match current and expected budgets (Dombeck 1998, USDA 2015b). Yet we see no such commitment in the Proposed Action.

As noted in the Forest’s 2014 National Forest Assessment, the Flathead currently receives only 43% of the funds needed to maintain its road system to standards, yet the Forest is still trying to keep over 3,500 miles on the books. To make matters worse, Table 176, p. 200 shows that in the two most recent years, the Forest only maintained 690-691 miles or 19.6% of its system roads, leaving the rest to deteriorate, blow-out into key bull trout streams, and provide excessive “administrative use” into grizzly bear and lynx habitat.

Directives for the 2012-planning rule require desired conditions for roads that “...describe a basic framework for an appropriately sized and sustainable transportation system that can meet [identified access and other] needs.” (FSH 1909.12, ch. 20, § 23.231(2)(a)). Yet the Travel Access Report for the Flathead National Forest (USDA 2014a) claimed that of over 3,500 miles of FS road, 3,465 miles were “likely needed”, while only 55 miles were identified as “likely unneeded” and could be removed. The time is long past for the Flathead to downsize its bloated road network to a level that is fiscally and ecologically sustainable, and the new Forest Plan is the place to start.

The Forest plans to “Maintain up to 2260 miles of NFS trails.” Does this mean over 5 years, or 10 years, or the life of the Plan? And here again, does the Forest have the budget to do so? How does the Flathead propose to pay for the ill-advised snowmobile “trail” additions called for in the North Fork Geographic Area that are right in the middle of a lynx corridor (Squires 2013)?

The Pof the PA under Standard 01 says the following: “Within the NCDE PCA, motorized use of roads with public restrictions shall be permitted for administrative use (see glossary), as long as it does not exceed either 6 trips (3 round trips) per week OR one 30-day unlimited use period during the non-denning season (see glossary).” (PA at 67.) This motorized use loophole has no basis in grizzly bear science in the NCDE or anywhere else, and is well beyond the documented security habitat tolerance of the species. The research of Mace & Waller (1997) demonstrates that motorized use on their restricted roads was “less than one vehicle per day – essentially zero.” Are the Forests of the NCDE proposing to give away all the gains in grizzly recovery by crafting a plan devoid of sound science?

Grizzlies repeatedly or continuously displaced during the non-denning season will suffer impaired



feeding, breeding, and denning, with potential consequences for their survival, and the survival of their cubs (USFWS 2014a). Grizzlies do not distinguish between agency, contractor, and public vehicles, and will be displaced by all of them – causing harm to them and their habitat.

The Forest impermissibly excludes administrative use of roads from its baseline calculation: “Note: Administrative use is not included in baseline calculations and is not included in calculations of net increases or decreases.” First, this provision is in direct conflict with Amendment 19 motorized route provisions, which dictate that any road open for any portion of the non-denning season is to be considered an Open Road, and counted as such (USDA 1995). Second, since grizzlies do not distinguish between agency and public vehicles, they will not, and cannot give agency vehicles a pass when it comes to impairing otherwise secure habitat.

The PA Standard 02 says: “In each bear management subunit within the NCDE PCA, there shall be no net decrease in the baseline level (see glossary) for secure core and no net increase in baseline levels for OMRD or TMRD on NFS lands during the non-denning season (see glossary) with the following exceptions: Temporary use of a motorized route for a project (see ‘project’ in grizzly bear habitat in the NCDE in the glossary).” (PA at 67.)

First, the “no net decrease/increase” provision means that these changes actually are allowed, as long as they are mitigated/compensated for elsewhere. The problem here is that it assumes grizzlies – particularly females with cubs – can be shuffled about their home ranges whenever it suits the Forest, with no adverse consequences. Years of grizzly research suggests otherwise (USFWS 2014, 2014a).

Second, here and throughout the entire PA, every time the Flathead gives some small morsel of protection to wildlife and habitat with its right hand, it immediately snatches it away with its left, by way of “exceptions” – essentially creating loopholes that demonstrate the Forest is not serious about protections to begin with.

Third, the “temporary use for a project” wording creates another unacceptable loophole. It essentially says that the Forest can destroy grizzly bear habitat security with unlimited use for 30 days before the intrusion even counts as a “Project” involving “Temporary Use.” And even after those 30 days, the use could extend for years. A more flagrant and intentional case of take to a listed species and adverse modification of its habitat is difficult to imagine. Of course, the same can be said for the ESA listed lynx, and the soon to be listed wolverine.

The PA under Standard 03 says: “In each bear management subunit within the NCDE PCA, temporary changes in the OMRD, TMRD, and secure core shall be calculated for projects...The ten-year running average for OMRD, TMRD, and secure core numeric parameters shall not exceed the following limits per bear management subunit:

- 5% temporary increase in OMRD
- 3% temporary increase in TMRD
- 2% temporary increase in secure core”

PA at 68. First, these changes have no scientific basis as noted earlier, are based on an NCDE Draft Conservation Strategy that has similar flaws, and are impermissible under current law (A19).

Second, such 10-year averages are used to artificially average the true impacts of projects out of existence. Grizzlies do not have to survive the 10-year average of a project, but the actual changes to security during the 4-year project shown in Example-1a, page 68. When this is calculated, we see that the true damage to habitat is as follows:

- OMRD increases 12% (from 19% to 31%)
- TMRD increases 3% (from 19% to 22%)
- Core decreases 6% (from 69% to 63%)

Third, a project of four years as shown in Example 1a, is decidedly not temporary, and grizzlies displaced by such lengthy habitat intrusions can be expected to suffer consequences to feeding, breeding, denning, and mortality, particularly females with cubs (USFWS 2014a). In addition, since the above actual percentages far exceed known grizzly tolerance levels as reported by Mace and Waller (1997), some displaced bears may actually lose their institutional memory for key portions of their home ranges, or may fail to pass it on to their cubs.

The PA under Standard 04 says: “Within the NCDE PCA, restricted roads may be temporarily opened for public motorized use for up to 30 consecutive days to allow authorized uses such as firewood gathering, provided the period of use occurs outside of spring and fall bear hunting seasons.” (PA at 69.) Once again, this provision is directly tied to a finalized, legal NCDE Conservation Strategy, which at the earliest would occur in 2018, and probably well beyond. Until that happens, and grizzlies are delisted – decade to be determined – Amendment 19 direction is that any road open for any of the non-denning season must be counted as Open for the full year and counted against A19 compliance (USDA 1995).

In all likelihood, opening a Restricted area/road for 30 consecutive days, or anything close to it will effectively displace grizzlies from important portions of their home ranges with consequences for feeding, breeding, denning, and survival (USFWS 2014a).

Given that science-based access management like A19 has played a major role in the ongoing recovery of the NCDE grizzly population, why would the Flathead be so reckless as to turn the clock back to prior times when access decisions routinely ignored the habitat requirements of grizzlies and other wildlife? Why risk a grizzly success story so that someone can get a cord of wood in a Restricted Area?

Perhaps most telling is the reference to “spring and fall bear hunting seasons”, since it clearly shows that the agencies are already looking beyond the delisting of grizzlies and planning for hunting seasons – including spring seasons that would imperil females with cubs.

The PA under Guideline 01 says: “In each bear management subunit within the NCDE PCA, projects...should be designed so that on-the-ground implementation does not exceed 5 years in a 10-year period, to reduce the potential for grizzly bear disturbance or displacement.” This is immediately followed by more loopholes: “If an extension to the 5-year time limitation is required (e.g., to meet contractual obligations or to complete on-the-ground treatments), the reasons should be documented in writing prior to authorization of the extension.” (PA at 69.)

Certainly the Forest must know that nothing in this 5 in 10-year language has any foundation in grizzly research or ecology, but rather is an arbitrary provision written in for manager preference/convenience. The inconvenient truth is that no grizzly population will remain secure and thrive if its home range is disrupted for extended time periods during 5 out of 10 years – perhaps repeatedly, since this Guideline contains no limitation on projects or extensions.

The extension provision to an already excessive 5-year project limitation is little more than a blank check to double-down on grizzly habitat destruction, and does not even bother to set criteria to determine if an extension is warranted or permissible. This entire Guideline represents wildlife

mismanagement at its worst.

The PA Guideline 02 says: “Within the NCDE PCA, secure core and motorized route density values (OMRD and TMRD) should be restored to pre-project levels...within 1 year after completion of the project...If an extension to the 1-year time limitation is made...the reasons should be documented in writing prior to authorization of the extension.” (PA at 69.) The Flathead is proposing to negatively impact grizzly bear values for Core, OMRD, and TMRD with 5-year projects, plus unspecified Extensions, followed by a 1-year restoration period, with its own unspecified extension. It is not difficult to see a damaging 5-year project extending its impacts out to six, eight or even ten years, apparently based on little more than manager whim. Such disregard for wildlife habitat impacts is how the grizzly became a threatened species to begin with, and it is unlikely the results will be different here. The Forest must do better.

Guidelines 3 through 11 (PA at 69-70) are all very important protective provisions and warrant being reclassified as Standards. In addition, wherever the discretionary word “should” appears, it needs to be changed to “shall” to ensure that actions are mandatory and adequate to protect bears.

The PA Glossary contains the following questionable definitions and management of Roads:

- “decommissioned: The stabilization and restoration of an unneeded road to a more natural state (36 CFR 212.1). Decommissioned roads do not count towards Total Motorized Route Density as long as they meet the definition of impassable...”
- “impassable: A road that has been treated in such a manner that the road is blocked and there is little resource risk if road maintenance is not performed on a regular basis (self-maintaining). These roads are not counted in the total motorized route density as long as the road (generally the first 50 to 300 feet) has been treated to make it inaccessible to wheeled motorized vehicles during the non-denning season...Impassable roads may remain on the inventoried road system if use of the road is anticipated at some point in the future.” PA at 157 – 158 (emphasis added).

Clearly, the Flathead is trying to claim roads as “Decommissioned and Impassable” so it can remove them from the Total Motorized Route Density (TMRD) list that counts against grizzly security, while simultaneously leaving them on its “inventoried road system” in case they are wanted for future motorized use. This linguistic gymnastics would create a system of ghost roads that would be decommissioned before they were not decommissioned. Not only is this disingenuous, it would represent a significant impermissible retreat from current Amendment 19 standards which require that decommissioned roads be effectively blocked, re-contoured, and have bridges and culverts pulled.

### **3. General Forest/Suitable Timber Base**

The Flathead’s figures on “Suitable Timber Production” seem to change based on which page in the PA is being viewed, with all departing dramatically from the Draft 2006 Plan, as follows:

- The 2006 Draft Forest Plan listed suitable timber acres of 328,328 (USDA 2006).
- PA page 74 shows the Suitable Acres as 500,733, with no explanation for the 172,405-acre increase – a 52% inflation.
- PA page 104, Table 30 shows the General Forest acres in 6b Moderate harvest as 435,773, and 6c High harvest as 169,068 acres, for a total of 604,841 acres - with most presumably in the “Suitable Timber Base” column - and an 84% increase over 2006.
- A chart provided to the Flathead Beacon (2015, below) as part of their article on the Forest

Plan Revision, shows a Suitable Timber Production of 637,419 acres – a number that represents a 94% increase since the 2006 Draft Plan.

#### Lands Suitable for Timber Production

##### **Comparison with current 1986 Plan, 2006 analysis, and 2015 Revision-Proposed Action**

(Note: Acres are from existing MA layers for 1986 and 2006, and from the final MA layer for the 2015 proposed action)

1986 Forest Plan	Approx. Acres	%	2006 Proposed Forest Plan - Modified - Approx. Acres	%	2015 Revised Forest Plan Proposed Action	%
Suitable	707,000	30%	529,000	23%	637,419	27%
Unsuitable	1,688,000	70%	1,866,000	77%	1,755,935	73%
<b>TOTAL ACS</b>	<b>2,395,000</b>		<b>2,395,000</b>		<b>2,393,354</b>	

That same chart shows a “2006 Draft Plan –Modified” number of 529,000 acres, when we are aware of no such “modification” in 2006 that was open to public review. If this number was created by the Flathead Forest as part of the 2014 “collaborative process,” it should not be shown as a scientifically supported number, since it arbitrarily inflates the 2006 timber base by 200,672 acres and 61%.

The Flathead must settle on one scientifically and legally grounded number for Suitable Timber Acres and stick to it throughout all future documents. Until the Flathead can scientifically document otherwise, that number should be the 2006 figure of 328,328 acres.

A review of the Proposed Action’s Geographic Area maps and the Biological Assessment (USDA 2014) suggests that these arbitrary inflations of the timber base result from entering grizzly bear core areas – which is impermissible under current law, and from relaxing lynx critical habitat protection – also not permitted in many/most situations (USDA 1995, USFWS 1988).

In terms of entering grizzly bear core, it is clear that the Forest is assuming that the NCDE Conservation Strategy will be quickly approved, found to be legal, with delisting of the NCDE population sailing through. Neither assumption has any basis in logic, law, or science, and certainly does not serve as a stable foundation on which to develop a Forest Plan.

The Proposed Action’s treatment of General Forest MA 6a Low borders on schizophrenic when it comes to logging/harvest on page 104. Under “Suitability” the Forest says “These areas are not suitable for timber production; however timber harvest for multiple-use purposes, for salvage logging, and to achieve desired vegetation conditions could occur (emphasis added). Clearly, both of these terms could and likely would involve the logging of trees – one on a regular basis and the other less often – and the Forest should not be splitting semantic hairs to claim that 6a Low areas are not suitable when clearly they are. The reality is clearly stated in the first paragraph on p. 104, as follows: “Though landscape level output levels may differ between these designations, at the site specific project level, timber outputs may be similar. For example, a 500 acre timber sale in MA 6a (Low) may result in similar total timber volume as a 500 acre sale in MA 6c (High).”

We can guarantee that the grizzlies, lynx, bull trout, and water quality will not know or care whether the logging going on around them is deemed “timber production” or “timber harvest” by the Forest and recommend that the Flathead stop implying that 6a logging is somehow more ecologically benign.

The Proposed Action refers to PTSQ (Potential Timber Sale Quantity) and PWSQ (Potential Wood Sale Quantity) noting that PTSQ during the first decade is projected at 28.3 MMBF, while PWSQ

would be 30.3 - 34.3 MMBF. (PA at 74-75.) The more important disclosure, however, is that these numbers are based on the “fiscal capability and organizational capacity” to achieve them, which is “based on current budget levels.” Given recent statements in the Kalispell Daily Interlake by Forest Service Chief Tidwell that the Flathead could easily triple its cut, and statements by Montana’s Congressional delegation that they will help with funding in that regard (Kalispell Daily InterLake 2015), it is disingenuous of the Forest to imply that the 28.3 MMBF number is set in stone for the next decade.

In the forthcoming DEIS, it is vital that the Flathead lay out the increased funding levels likely to be pursued and the PTSQ numbers that would accompany them, or better yet, commit to an enforceable limit of 28.3 MMBF. This is particularly important given the Forest’s clear intent to enter grizzly bear Core areas and lynx critical habitat, restrained only by the threatened status of these species under the ESA, which the Forest hopes to see end.

In addition, given the Forest Assessment’s (2014) admission that the Forest only receives 43% of the funding to maintain its current roads, the EIS needs to explain how the Flathead will pay for the significant additional roads that would accompany Chief Tidwell’s tripled harvest level, and the implications for water quality, bull trout, grizzlies, lynx, wolverine, elk habitat, and landscape connectivity.

In the PA’s Forest Vegetation Products section, Standards 01 through 09 - theoretically designed to constrain logging and protect habitat - are so littered with loopholes and exceptions that it is clear these would be protective measures in name only. (PA at 76 – 77.) The Forest cannot repeatedly pretend to offer protection with its right hand only to snatch it away in the next sentence with its left. The need for clear, enforceable standards and limitations becomes even more imperative when we read the definition of “Sustained Yield Limit” (SYL) on PA page 74:

“Per the National Forest Management Act (NFMA) and planning rule regulations, the quantity of timber that may be sold must be less than or equal to the potential sustained yield limit (SYL). The SYL is the amount of timber, meeting applicable utilization standards, ‘which can be removed from a forest annually in perpetuity on a sustained-yield basis...It is the volume that could be produced in perpetuity on lands that may be suitable for timber production. Calculation of the limit includes volume from lands that may be deemed not suitable for timber production after further analysis during the planning process. The calculation of the SYL is not limited by land management plan desired condition, other plan components, or the unit’s fiscal capability and organizational capacity” (emphasis added).

Given the license to log allowed by this passage, it is imperative that the Flathead Forest DEIS unequivocally commit to “ecological sustainability of the landscape” as its prime directive, with the “sustainability of its timber operation” of secondary importance. It is also vital that the EIS justify any attempt to dramatically ramp up the Suitable Timber Base from the 2006 Draft Forest Plan with no demonstrated biological basis to do so.

#### **4. Landscape Connectivity**

In his pivotal report, “Conservation Legacy on a Flagship Forest: Wildlife and Wildlands on the Flathead National Forest, Montana” Dr. John Weaver (2014) found that: “The community of carnivores (17 species) on the Flathead National Forest appears unmatched in North America for its variety, intactness, and density of species that are rare elsewhere (P: 114)...”. And, “Consequently, many scientists advocate the need for conservation corridors or linkages between

habitats (existing and future) to support necessary movements and greater viability (P: 5)..."

These findings echoed the earlier conclusions of Weaver (2001) that:

"Due to these unique characteristics and its strategic position as a linkage between National Parks in both countries, the transboundary Flathead may be the single most important basin for carnivores in the Rocky Mountains.

The challenge is to develop and implement a transboundary conservation plan that honors these outstanding values. Key principles for carnivore conservation include to: (1) maintain food resources with management of habitat and prey populations, (2) provide security from excessive mortality with networks of core reserves and other precautionary measures, and (3) maintain regional connectivity with landscape linkages." (emphasis added).

The Forest initially appears to embrace these concepts on PA pages 3-4 when it notes that:

"The Flathead National Forest is uniquely positioned in the heart of the Crown of the Continent Ecosystem, with a complex of wilderness and unroaded areas that border Glacier National Park and a remote portion of British Columbia. This location, among some of the largest wild areas in the lower 48 states, enhances its importance as a connector of habitats and core populations of associated wildlife..." The Proposed Action then goes on to proudly note that the 2.4 million acre Flathead Forest supports 1.8 million acres of designated lynx critical habitat, one of the largest wolverine populations in the lower 48 states, and the highest density of grizzly bears in inland North America.

These are hopeful signs that the Flathead has its land management heart and head in the right place when it comes to protecting carnivores and the landscape scale connectivity they require to survive. And it is even more important given the requirement in the 2012 Planning Rule (USDA 2012) that connectivity and ecosystem integrity be key elements in forest planning. Unfortunately, it quickly becomes clear that the Forest has confused repeatedly mentioning habitat connectivity, with making the management decisions to actually accomplish it. In fact the PA as currently written, actively subverts landscape connectivity both north-south and east-west in the following ways:

- (a) Following the lead of the flawed NCDE Conservation Strategy (CS), the Flathead and other forests would abandon Amendment 19 to the Flathead Forest Plan on motorized access – the only science-based standards in the ecosystem – replacing it with a 2011 Baseline "Standard" firmly grounded in nothing but agency preferences.

A key purpose of A19 was to reweave the Forest's ecological web by lowering excessive motorized route densities and restoring habitat security based on known grizzly bear needs. By abruptly dumping A19, with numerous Bear Management Units (BMU's) still failing to meet their bear-based standards, the Conservation Strategy, Proposed Action, and Amendments leave gaping holes in the security network and connectivity of grizzly habitat ecosystem-wide, with impacts for other wide-ranging carnivores as well.

- (b) As noted earlier, the Flathead proposes to ramp up Suitable Timber Acres from the 328,000+ acres of the 2006 Plan, to the unjustified 500,000–637,419 acres in the current PA and published reports – an increase of 172,000 acres to 277,000 acres and +52% to +94% – all with no demonstrated increase in the land's ecological capacity to support such excessive harvests.

A survey of the PA's Geographic Areas maps (Appendix C) and their Management Area (MA) designations, clearly show that the Forest intends to artificially inflated the Suitable Timber Base by impermissibly entering grizzly bear Core areas, compromising designated lynx critical habitat as shown in its own Biological Assessment (USDA 2014), repeatedly breaching the north-south lynx corridor demonstrated by Squires (2013), and intruding on wolverine maternal habitat

## **5. Wilderness & IRA's**

The Proposed Action shows that the Flathead has 25 Inventoried Roadless Areas (IRA's) totalling 478,754 acres. Yet despite the fact that we are in the earliest stage of scoping, it indicates that the Forest has already eliminated 15 of those IRA's (60%) from further consideration as recommended Wilderness, advancing only 34-35% and 188,206 acres (although our math suggests 39%).

Unfortunately, the PA provides no specific documentation as to how or why these decisions were reached despite the requirement in the Forest Service Handbook (2015 FSH 1909.12, Chapter 70 – Wilderness) it they do so:

- “Based on the evaluation and input from public participation opportunities, the Responsible Official shall identify which specific areas, or portions thereof, from the evaluation to carry forward as recommended wilderness in one or more alternatives in the plan EIS...
- “For each evaluated area or portions thereof that are not included in an alternative in the applicable NEPA analysis, the Responsible Official shall document the reason for excluding it from further analysis.”

Since the Forest has clearly established criteria and apparently employed them to eliminate over 60% of IRA's from Wilderness consideration, citizens should not have to wait until the Draft EIS comes out many months from now to be let in on that process. We recommend that this decision-making process be released immediately on the Forest Plan website.

Additionally, we are concerned that FSH Chapter 70 on Wilderness (p.12, #5) appears to stress management and “manager preferences” in the Wilderness evaluation process when it says: “Evaluate the degree to which the area may be managed to preserve its wilderness characteristics. Factors to consider include shape and configuration; presence and amount of non-federal land in the area; and management of adjacent lands.” These suggest a focus on ease of access, ease of management, and ability to manipulate the landscape as inappropriate criteria to eliminate Wilderness consideration. They appear to not only violate the Wilderness Act itself, but the clear intent of Congress.

In clear, simple language, the Wilderness Act (1964) lays out the ground rules under which areas are to be judged for Wilderness: “A wilderness, in contrast with those areas where man and his works dominate the landscape, is hereby recognized as an area where the earth and the community of life are untrammelled by man, where man himself is a visitor who does not remain.” And “In order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States...leaving no lands designated for preservation and protection in their natural condition, it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness.”

The conditions that Congress clearly intended to discourage or disallow were human dominance, settlement, overuse, or mechanization of wild landscapes. Conditions to be encouraged and guarded were untrammelled and uncontrolled landscapes and ecological processes, with areas

protected and preserved in their natural condition. Finally, humans are to be temporary visitors only, not managers or manipulators of the landscape.

We note that the Proposed Action shows 306,270 acres of MA 5 Backcountry, much of it in Inventoried Roadless Areas (IRA's) however, only 48.4% and 148,323 acres are real, functional, 5a Non-Motorized Backcountry. (PA at 102.) The remaining 51.6 % and 157,947 acres are 5b Motorized year-round, 5c Motorized over snow, and 5d Motorized summer – in essence false backcountry where the Forest Service intends to allow motorized and mechanized use, noise and air pollution to dominate the landscape.

Given the increasing scarcity and ecological value of Inventoried Roadless Areas, we recommend that all Flathead Forest IRA's be classified as Recommended Wilderness or Backcountry Non-motorized Year-round. For specific recommendations on Wilderness and Backcountry, see the Geographic Area analysis below.

## **B. Specific Issues & Solutions by Geographic Area**

### **1. North Fork Geographic Area**

When the Flathead Forest was created in 1906, the Whitefish Range was a 500,000+ acre contiguous block of Wilderness, but a century of excessive logging and roading has reduced this by more than 60% to just over 195,000 Wilderness Inventory Acres (PA, Appendix F).

While we applaud the Forest for its recommendation of 80,000 acres as Wilderness, this further 115,000 acre reduction in North Fork Wilderness is unwarranted. It is clear that this area, a critical carnivore linkage as noted by Weaver (2011, 2014) and Squires (2013), has long since paid its dues as a resource colony for the logging industry, and more recently a small but loud motorized/mechanized recreation special interest area. It is time for the Flathead to restore the balance and ensure habitat connectivity.

As recommended by Weaver (2014), Recommended Wilderness must be extended south from the Canadian border at least to the southwest corner of the Coal Creek State Forest. In addition, fingers of 6a & 6b General Forest that fragment this block of lands must be reclassified as 1b Recommended Wilderness, or 5a Backcountry Non-Motorized to consolidate secure habitat linkages, as follows:

- Whale Creek (FR 318) would be reclassified west of the Hornet Lookout junction as 1b Recommended Wilderness or 5a Backcountry Non-motorized. General Forest 6b bracketing an Wild & Scenic eligible creek is completely inappropriate.
- Red Meadow Creek west of Section 10, and beyond a 500m buffer on either side would be 5a Backcountry Non-motorized.
- Hay Creek west of Section 26 would be 1b Recommended Wilderness beyond a 500m road buffer.
- Coal and South Coal areas west of the Coal Creek State Forest would have roads closed, habitat restored, and be reclassified to 1b Recommended Wilderness and 5a Backcountry Non-Motorized.
- Immediately south of the Coal Creek State Forest, the area around Dead Horse Creek would be changed from 6a & b General Forest, to 5a Backcountry Non-motorized, and linked to similar 5a areas surrounding it.
- North of Big Creek, and west of FR 5233 (Elelehum Lake RD) all lands would become 5a



Backcountry Non-motorized, with the exception of FR 315, 316, 5207 and their 500m buffers.

- South of Big Creek, the area currently shown as 5a would remain so, but all contiguous 6a General Forest areas would become 5a Backcountry, as would the current 6b General Forest immediately to the NW.

Given the Forest's eagerness to abandon Amendment 19, although it is based on the best available grizzly bear science, it is imperative that the Forest also revisit and completely revise Amendment 24 relating to snowmobiles, which is currently based on the recreational wants of a comparatively small number of forest users.

Specifically, given the north-south lynx habitat corridor identified by Squires (2013), and the impending listing of the wolverine, which relies on higher elevation snow bowls and areas of late spring snow as maternal habitat (Chadwick 2010), we recommend the following:

- The large snowmobile play area (5c) off the NW corner of Red Meadow Rd. in the Chain Lake-Nasukoin region (PA map C-20) should be immediately reclassified to 1b Recommended Wilderness – which already surrounds it on 3 sides.
- The large snowmobile play areas (5c) and the routes that feed them SW of the Coal Creek State Forest and north-northwest of Moose Lake are textbook examples of how to fragment wolverine maternal habitat and designated lynx critical habitat. They must be reclassified as 5a Backcountry to complement the surrounding habitat, and provide the connectivity the Forest claims to value, and the 2012 Planning Rule requires (USDA 2012).

The Forest's Wilderness Evaluation rates this area "low" for lynx connectivity, but this situation is entirely of the agency's creation due to excessive roads and snowmobile sacrifice areas, both of which must be closed and restored, particularly since this area is all designated lynx critical habitat.

The high elevation snowmobile areas shown along the western margins of this Geographic Area are inappropriate in light of potential impacts on lynx, wolverine, and grizzly denning habitat. In addition, the unintended consequences of snowmobiles packing routes for wolves and coyotes into big game winter range must be acknowledged and analyzed (Gese et al. 2013.).

The PA under Desired Condition 10 says, "The Cedar Creek/Crystal Creek/ Teakettle Mountain areas provide habitat connectivity for wide-ranging wildlife species (e.g., grizzly bear, Canada lynx, wolverine) moving between the Swan Valley, Hungry Horse, Middle Fork, and North Fork watersheds." (PA at 121.) While we agree with the Forest that this is a "desired", even vital condition, there is nothing in the Management Area designations that can possibly bring this about. In fact, the designation of the lower 15 miles of the North Fork GA as primarily 6b Moderate logging and 7 Focused Recreation, when combined with private property attractants, the BNSF railroad, and Highway 2 with thousands of vehicles per day May through October (Waller 2005), makes this area a minefield for carnivores. We recommend that the Flathead reclassify a significant band of the 6a & 6b General Forest NW of Hungry Horse as 5a Backcountry, and connect it to the 5a Backcountry south of Big Creek.

Desired Condition 11 on the same page says, "The Transboundary Flathead River Basin provides habitat connectivity for wide-ranging wildlife species (e.g., grizzly bear, Canada Lynx, wolverine) moving between Glacier National Park and the Whitefish Range." (PA at 121.) However, as we have detailed above, the Flathead's intention to repeatedly fracture otherwise secure roadless areas with the intrusions of General Forest 6b logging and snowmobile routes and play areas, places this

connectivity in jeopardy. We recommend that the Flathead adopt all of our security-building changes to make this connectivity a reality.

## **2. Hungry Horse Geographic Area**

The PA includes the following:

- Desired Condition 03 – “The north end of Hungry Horse Reservoir has recreational development that accommodates high use levels at concentrated developed sites;
- Desired Condition 08 – “The Hungry Horse Race Track and other motorized trails systems (including Alpine 7, Columbia Mountain, and interconnecting trails along the Swan Divide) provide summer motorized opportunities close to local communities.”

(PA at 114 – 115.) After these Desired Condition statements, accurately portraying an area of intense motorized and mechanized recreation, Desired Condition 12 repeats the impossible hope that, “The area from Badrock Canyon to Hungry Horse provides habitat connectivity for wide-ranging species (e.g., grizzly bear, Canada lynx, wolverine) moving between the South Fork, North Fork, and the Middle Fork Flathead River Watersheds.”

We remind the Forest of the report by grizzly researcher Kate Kendall at the Spring 2013 NCDE Grizzly Subcommittee meeting, and in the Draft CS itself (USFWS 2013, p. 13-14) that this very same highway corridor was well on its way to being a fracture zone for grizzlies.

Unfortunately, when we look at the Hungry Horse Geographic Area map (C-18), we see that these conflicts with wildlife connectivity are just the tip of the iceberg. From Hungry Horse southeast to the Bob Marshall Wilderness Complex, the Flathead Forest proposes to create a linear fracture zone encircling the Hungry Horse Reservoir and 35 miles long by 5-12 miles wide – created by MA designations of 6a/6b General Forest, 5b Motorized year-round, and 5c Motorized winter – with the vast majority of it inappropriately compromising one of the largest Inventoried Roadless Area (IRA) blocks and wildlife connectivity areas on the Forest. The only 1b Recommended Wilderness is Jewel Basin at a token 15,300 acres and even here we note the area is completely cut off on all sides by motorized use and logging, creating an island wilderness in a sea of severed connectivity.

If the Forest is to repair these important landscapes, and its credibility as an agency that supports habitat/wildlife connectivity, it must move clearly and forcefully in the following ways:

- At a minimum, adopt the Wilderness recommendations of Weaver (2014) page 101, running east from the Swan Crest and including all areas currently designated as 5b Motorized year-round, 5c snowmobile, and 6a General Forest.
- Include Doris, Lost Johnny, Graves, Wheeler, and Quintonkin Creeks as restoration areas and Sullivan Creek as Eligible Wild & Scenic.
- Adopt Weaver’s (2014) Backcountry Non-motorized 5a recommendations west of the reservoir, and where they are in conflict, reclassify 6a General Forest, 5b & 5c motorized MA’s to 5a Backcountry Non-motorized. In particular, with 79% of the Hungry Horse West Wilderness Inventory Area an IRA, it is unacceptable to have 77% open to snowmobiles – especially with nearly 100 miles of snowmobile routes adjacent to the reservoir itself, where they are far less damaging.

East of the reservoir, all areas classified as Inventoried Roadless Area should be 1b Recommended Wilderness and added to the Great Bear Wilderness. Adjacent 6a General Forest and 5c Snowmobile should be reclassified as 5a Backcountry Non-motorized Year-round. Given the area’s proximity to the Great Bear Wilderness, and the fact that 80% is grizzly Core and 97% is designated lynx critical habitat (PA Appendix F), these more intrusive uses are unacceptable.

If connectivity truly is a priority with the Flathead, all portions of the Swan Crest, any trails crossing it, and Alpine Trail 7 itself, must be classified as Non-motorized. Specifically, a section of Alpine 7 between Thunderbolt and Sixmile is excluded from the surrounding grizzly Core solely by its inappropriate designation for motorized use. It, and all similar Alpine 7 motorized routes must be closed.

### **3. Middle Fork Flathead Geographic Area**

Given the vital role that this narrow band of non-wilderness plays in connecting the Great Bear Wilderness with Glacier National Park, we are frankly amazed that the Flathead would risk that connectivity with a patchwork of postage-stamp Management Areas seemingly tossed together - with most damaging to wildlife connectivity.

Besides the potential impacts of 6b General Forest at four locations, we are particularly concerned with the substantial 5c Snowmobile areas, especially those south of Marias Pass Summit where the Flathead's ill-advised late snowmobile season has allowed riders to illegally enter Wilderness in the Skyland region and disturb grizzlies emerging from their dens. Before additional grizzly bear females with cubs are displaced by late season snowmobile routes and play areas, the Flathead must close all such late-season areas forest-wide. We strongly recommend that the Flathead classify all non-wilderness lands in this critical corridor as either 1b Recommended Wilderness, or 5a Backcountry Non-Motorized as shown by Weaver (2014), P: 97.

### **4. South Fork Geographic Area**

We commend the Forest for its extensive additions of 2b Eligible Wild and Scenic Rivers, both inside and outside the Bob Marshall Wilderness. Creeks and rivers this wild and pristine are increasingly rare, even in the Northern Rockies, and this designation is a wise and timely choice.

The non-wilderness northern end of this GA serves as both a gateway into the Bob Marshall, and an important transition from the recreational sacrifice zone around Hungry Horse Reservoir to the important wildlands upstream. Because of this, and the existing Wild and Scenic South Fork Flathead River bisecting it, we find the logging and motorized Management Areas shown on map C-22 to be ill advised at best. We recommend the Flathead make the following changes:

- Areas shown as 1b Recommended Wilderness would remain as such.
- Given the presence of Wilderness on three sides of this GA, all Inventoried Roadless Lands should be designated 1b Recommended Wilderness and conflicting MA's reclassified as such.
- Non-IRA areas bracketing the South Fork Flathead River and Spotted Bear River, and currently designated as 6a & 6b General Forest make no ecological sense. These classifications are incompatible with these streams Wild & Scenic, and Eligible Wild & Scenic status and should be changed to 5a Backcountry Non-Motorized.
- Establish protective buffers along FR 895 to Meadow Creek Trailhead, FR 549 to Gorge Creek Trailhead, and FR 568 to Silvertip Trailhead with the roads closed beyond those points to restore habitat connectivity.

### **5. Swan Valley Geographic Area**

Low elevation valley bottoms and their associated riparian networks provide some of the highest quality wildlife habitat in the Rocky Mountains, and that is certainly true for the Swan Valley GA. In

addition, its position between the Mission Mountain Wilderness on the west and the Swan Range and Bob Marshall Wilderness on the east, makes the Swan Valley a priority area for the restoration of ecological connectivity both north-south and east-west.

The Valley's habitat integrity is already impaired by more than 50 years of excessive logging and road building by Plum Creek Timber, the Montana Department of Natural Resources and Conservation (MDNRC), and the Flathead National Forest. These impacts are made worse by the patchwork quilt of federal, state, and private timberlands spanning the valley. However, the sale and transfer of 310,000 acres of Plum Creek land through The Nature Conservancy and Trust for Public Lands, and on to state and federal agencies under the Montana Legacy Project has consolidated public land ownership and provided the Flathead Forest with a unique opportunity to create Management Area designations that will reweave the area's ecological web, while providing for more sustainable logging operations.

Unfortunately, when we examine the MA designations for the Swan Valley GA (map C-23), it is clear that the Forest is largely failing to grasp the unparalleled restoration opportunity before it. Virtually the entire central core of the valley, both south and north of the Swan River State Forest is given over to 6b General Forest – Moderate (Logging), with much of the Swan Face and Crest sacrificed to 5b, 5c, and 5d – Backcountry Motorized Year-round, Motorized Over-snow, and Motorized Summer. In addition, we note the designation of Krause Basin as an MA 7 Focused Recreation area in direct contravention of previous commitments by the Flathead in the 1988 Noisy Face Recreation Plan to reduce motorized routes by half, restore the damaged habitat, and to not mark area trails. Those commitments must be kept.

We welcome exceptions to this sanctioned habitat fragmentation include the designation of the southern Swan Face from Inspiration Pass south to the Forest boundary as 1b Recommended Wilderness, and similar small 1b additions to Jewel Basin, and along the Valley's western margin. Additional sound decisions include the classification of portions of Lion, Piper, Elk, and Glacier Creeks, and the Swan River at Lindbergh Lake and south of Swan Lake as 2b – Eligible Wild and Scenic Rivers.

To build on these habitat/connectivity success stories, and make a clear commitment to Ecological as well as Economic Sustainability in this important Geographic Area, we recommend the following changes to Management Area designations:

- Thanks to the purchase and transfer of former Plum Creek lands to the Forest Service under the Montana Legacy Project, nearly 90% of the sections south of the Swan River State Forest are now under Flathead Forest management. This means that many Bear Management Subunits that formerly did not fall under the motorized route standards of Amendment 19 because they were less than 75% Forest Service, now meet or exceed that standard. The Flathead must move immediately to adopt the A19 standards in these Subunits and incorporate them in the new Forest Plan. We note as well that these changes are required by the court decision in the Glacier/Loon case (*Swan View Coal. v. Weber*, No. CV 13-129-M-DWM, 2014 WL 4824551 (D. Mont. Sept. 25, 2014), *on reconsideration in part*, No. CV 13-129-M-DWM, 2014 WL 6977055 (D. Mont. Dec. 8, 2014).).
- Since 1995, the Flathead has been part of the Swan Valley Grizzly Bear Conservation Agreement (SVGBCA) along with Plum Creek Timber, Montana DNRC, and the U.S. Fish and Wildlife Service to manage the patchwork of land jurisdictions and provide some level of connectivity for grizzlies by way of four Linkage Zones between the Swan and Mission

Mountains (USFWS 1995).

We recommend that the Flathead immediately bring the Valley generally, and its portions of the Linkage Zones specifically, under the protection of A19; designate the roads to be closed and the habitat to be restored; provide a timetable and budget to achieve this; and formally consult with FWS on this new plan. We further recommend that the top quality riparian habitat from Elk Creek to Cold Creek be included in the Linkage Zone W-NW of Condon.

Given the heavy logging and roading that the former Plum Creek sections have undergone over many decades, it's hard to justify the Flathead's classification of nearly the entire central core of the valley as 6b Moderate (logging), thereby continuing the habitat decline rather than beginning the restoration process.

We recommend that the Forest reconsider this wholesale designation of many sensitive or impaired landscapes for further logging - in particular those bracketing Lion, Piper, Cold, Elk, and Glacier Creeks, and Swan River at the mouth of Lindbergh Lake - most with sections of 2b Eligible Wild and Scenic River and/or in Linkage Zones. It defies ecological common sense to bracket such areas with 6b Moderate logging. Riparian zones and critical bull/cutthroat trout streams of this quality are no doubt important habitat and linkage zones across the valley for grizzlies and other carnivores. As such, they should be buffered on each side by 500 meters with logging and roads excluded. We recommend an additional buffer around this of 6a General Forest Low to further protect these important streams from the intensive logging that has impaired much of the valley.

Along the eastern boundary of the GA (Swan Face/Crest) virtually the entire area is Inventoried Roadless Area and we recommend extending the MA 1b Recommended Wilderness north from Inspiration Pass to a 500m buffer along Highway 2. Any portions that the Forest could ecologically demonstrate did not meet 1b standards would become 5a Backcountry Non-motorized including Alpine Trail 7 along the Swan Crest. This would simultaneously provide critical wildlife connectivity and break the isolation of the Jewel Basin Recommended Wilderness.

The Proposed Action's current designation of most of the Swan Face/Crest as MA 5b, 5c, and 5d Motorized is frankly incomprehensible, as these motorized uses would enter and fracture designated grizzly bear core (68-82%) and lynx critical habitat (98-100%) (USDA 2014) ignoring science, law, and common sense. Now is the time to address and fix these errors.

## **6. Salish Mountains Geographic Area**

The Management Area designations for this GA highlight a fundamental problem for the NCDE Draft Conservation Strategy (USFWS 2013) and any Proposed Action based upon it. Both documents claim that the Salish Mountains are a Demographic Connectivity Area (aka Linkage Zone) for grizzly bears seeking to move between the NCDE and the Cabinet-Yaak Ecosystem (CYE).

Unfortunately, decades of mismanagement by the Flathead Forest have relegated this area to the role of a motorized, industrial logging moonscape, with road densities well beyond the documented capability of grizzlies to survive long-term (Mace and Waller 1997). And neither the Draft CS nor the Proposed Action do anything to reverse this trend, restore its habitat, or provide any grizzly security.

The Draft CS mentions that Montana Fish, Wildlife & Parks (FWP) Bear Managers have documented several grizzlies using the area, confusing that with evidence of either occupancy or survival.

Apparently calling a landscape a Demographic Connectivity Area is the same as it actually being one in agency minds. The real-world MA designations, however, lay out a far different reality, as more than 90% of the Salish Mountains are 6b General Forest Moderate (logging) and 6c General Forest High (logging). Even two small sections of 2b Eligible Wild and Scenic River are completely compromised as follows:

- Logan Creek west of Tally Lake is bracketed by MA 7 Focused Recreation on the east, MA 6c high logging on the west, and another Focused Recreation area after it leaves the lake to the north.
- Le Beau Creek in the northern corner of the GA has MA 6c High logging on the east, and the even more heavily logged and roaded Kootenai National Forest to the west.

The Flathead has essentially created two Eligible Wild & Scenic rivers to nowhere.

The Island Unit of the GA west of Lakeside fares even worse, with 100% dedicated to 6b Moderate logging, 6c High logging, and a large swath of Focused Recreation at its heart; essentially creating a habitat sacrifice zone. If any of the Salish Mountains GA is to function as a true DCA Linkage Zone between the NCDE and CYE, the Flathead Forest and the U.S. Fish and Wildlife Service must immediately step up to the habitat plate with significant MA designations based on the best available science regarding grizzly habitat security. We recommend that the Flathead make that connectivity a long-overdue reality by adopting Amendment 19 standards for Open Motorized Route Density, Total Motorized Route Density, and Security Core throughout the Salish and Island Subunits.

### **Recommendations:**

To ensure that the Forests of the Northern Continental Divide Ecosystem have forest plans that are firmly grounded in science and law, we urge adoption of the following recommendations:

- As currently written, the Draft Conservation Strategy (DCS) is biologically and legally inadequate to conserve NCDE grizzlies or their habitat, and does not provide the “adequate regulatory mechanisms” or habitat based recovery criteria required prior to delisting. Between now and the release of the Final Conservation Strategy, we recommend that all NCDE Forests work closely with the U.S. Fish and Wildlife Service to address and correct the shortcomings that we have identified in our current comments, and our previous comments on the Draft CS (attached).
- Amendment 19 to the Flathead Forest Plan – and adopted by the other Forests of the NCDE – provides the only Motorized Access Management standards based upon the “best available science” as required by law and sound wildlife management, and must be retained and fully implemented ecosystem-wide.
- The Flathead Forest Plan must actively promote landscape connectivity – particularly for wide-ranging carnivores - by employing management strategies based upon the best available science and our proposed Management Area designations for all Geographic Areas.
- The Flathead Forest must immediately reverse its Proposed Action’s policy of artificially inflating its Suitable Timber Base by entering grizzly bear core and lynx critical habitat. Neither action is legal under the Endangered Species Act and basing a Forest Plan on the assumption that either species will be prematurely delisted is extremely poor forest management. Until the Flathead can conclusively show that it has superior, scientifically sound numbers, the Suitable Timber Base from the Draft 2006 Plan – 328,328 acres – must stand.

- Although we are in the early stages of Forest Plan Revision, the Flathead Forest has already eliminated more than 60 % of all Inventoried Roadless Areas from Recommended Wilderness status, while providing none of the justification required by the Forest Service Handbook, Chapter 70 on Wilderness. We recommend that all Inventoried Roadless Areas be designated as Recommended Wilderness. If the Flathead can document compelling evidence based on the Wilderness Act and the ecological needs of the landscape that this is not appropriate in certain cases, then those IRA's would be Backcountry Non-motorized, Year-round. Decisions against Recommended Wilderness cannot be made based on manager or management preferences, or the recreational wants of users elevated over the ecological needs of the land.
- Finally, we recommend that the Forest consider and adopt the specific Management Area Designations that we have presented for each Geographic Area. We are confident that you will find they provide for a truly "suitable" timber base; a manageable road system that is both ecologically and fiscally responsible, while protecting water quality; protection of listed and candidate species; and a functionally connected forest landscape.

#### **IV. Bull Trout**

The Forest asserts that it is incorporating management standards and guidelines into its Forest Plan that are equivalent to those from the Inland Native Fish Strategy ("INFISH"). However, the Flathead Proposed Action results in a Forest Plan that is less protective of inland native fish and provides less aquatic and riparian restoration opportunities than it did under INFISH. It removes many of INFISH's important management elements, selecting certain components and ignoring others.

For one, it virtually eliminates priority impaired watersheds and the requirement to perform a watershed analysis. It also discards the numeric Riparian Management Objectives ("RMOs") from INFISH while adding objectives for only "structure, composition and function." It provides a selection of "desired conditions" that are primarily discretionary guidelines. Although it asserts that its standards and guidelines are "equivalent" to INFISH's, the Proposed Action lacks measurable, mandatory imperatives. In particular, it fails to provide standards for water and riparian areas. Moreover, the Proposed Action's standards and guidelines may fail to ensure that "riparian-dependent resources receive primary emphasis," as specified in INFISH.

Although INFISH is an inadequate long-term management strategy for inland native fish, the Proposed Action's discretionary objectives and guidelines fail to achieve even INFISH's level of protection for bull trout.

##### **A. INFISH background and legal framework**

In 1995, the Land and Resource Management Plans ("LRMPs") from 22 separate National Forests, including the Flathead, were amended to incorporate INFISH. U.S. Forest Service for Intermountain, Northern, and Pacific Northwest Regions, Decision Notice & Finding of No Significant Impact for the Inland Native Fish Strategy (1995). INFISH was adopted as an amendment to all national forest plans within the range of bull trout, and it provided National Forest management direction for native inland fish and fish habitat in accordance with the National Forest Management Act ("NFMA").

INFISH constitutes a broad-reaching aquatic habitat conservation strategy for native trout, outside

the range of anadromous fish in the Pacific Northwest, Northern and Intermountain Regions of the United States. INFISH was originally intended to serve as an “interim” management strategy for 18 months until the agencies completed a more-long term, comprehensive management strategy. More than 18 *years* later, the Federal Government is still implementing the same outdated management plan.

INFISH contains standards that guide forest management (i.e. timber harvest and silvicultural treatments), motorized recreation, grazing, mining, fire and fuels management, land exchange and acquisition, and other special uses to provide for sensitive inland fish species like bull trout. Key components of INFISH are Riparian Goals, RMOs, and Standards and Guidelines. Standards and Guidelines include Riparian Habitat Conservation Areas (“RHCAs”), or the portions of watersheds where agencies place primary emphasis on riparian-dependent resources and where management activities are subject to specific, measurable standards and guidelines. INFISH does not differentiate between Standards and Guidelines, and they apply to all RHCAs and to projects and activities outside of RHCAs that are identified in the NEPA process as potentially degrading RHCAs. The management standards and guidelines maintain Riparian Goals in RHCAs in an effort to protect water quality, stream channel integrity, sediment regime and other aquatic characteristics.

A single Decision Notice implemented INFISH’s interim management strategy on the 22 National Forests, and the Forest Service entered into Section 7 consultation under the Endangered Species Act (“ESA”) with Fish and Wildlife. In 1998, Fish and Wildlife completed Section 7 consultation with the Forest Service and BLM. Fish and Wildlife issued a Biological Opinion that analyzed the impacts to bull trout that resulted from implementing both INFISH and PACFISH.<sup>3</sup> U.S. Forest Service & BLM, Biological Opinion for the Effects to Bull Trout from Continued Implementation of PACFISH and INFISH (1998) [hereinafter Bull Trout BO].

According to the 1998 Bull Trout BO, overextending INFISH slows recovery of bull trout and poses serious risks to the survival of the species:

[i]ndefinite extension of PACFISH and INFISH aquatic conservation strategies delays the recovery of bull trout and increases the risk that key population segments will be irretrievably lost. The PACFISH and INFISH aquatic conservation strategies maintain a fragmented network of habitats in degraded condition, where they presently exist, because they lack a comprehensive management strategy which protects and restores bull trout watersheds. The interim direction does not provide adequate assurance that future actions will not result in adverse effects to listed bull trout DPSs.

Bull Trout BO at 50. In the Biological Opinion, Fish and Wildlife relied on the assumption that “[t]he species will persist, but most likely not recover under [INFISH’s] direction.” Bull Trout BO at 59 (emphasis added). Nevertheless, the Bull Trout BO ultimately concluded that continued implementation of the land management plans was not likely to jeopardize the continued existence of bull trout.

At the time of the 1998 consultation, no critical habitat had been designated for bull trout. Thus,

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<sup>3</sup> Also in 1995, the Forest Service and the BLM issued a comprehensive management strategy for anadromous fish-producing watersheds on additional federal lands in eastern Oregon, Washington, Idaho and portions of California (“PACFISH”). Except for a few rare and discrete populations not at issue here, bull trout are not anadromous. Therefore, INFISH is the primary management strategy affecting bull trout.



the Bull Trout BO reasoned that because “[n]o critical habitat has been designated for the species [ . . . ] none will be affected.” Bull Trout BO at 91.

The ESA required the Forest Service to reinitiate consultation with Fish and Wildlife on the programmatic management plans when critical habitat was designated for bull trout in 2010. 50 C.F.R. § 402.16(d). The 2010 rule designating critical habitat for bull trout acknowledged that the federal agencies “may need to reinitiate consultation on existing actions where they have continued discretionary involvement or control if the activity may affect designated critical habitat.” 75 Fed. Reg. at 63903. Although the Forest Service consulted with Fish and Wildlife and the National Marine Fisheries Service on the effects of INFISH and PACFISH and determined that the programmatic amendment would not jeopardize the continued existence of bull trout, the agencies never re-initiated consultation to determine whether the amendment would destroy or adversely modify critical habitat.

Courts have further determined that INFISH does not adequately ensure the survival and recovery of bull trout. *See Friends of Wild Swan, Inc. v. U.S. Forest Serv.*, 966 F. Supp. 1002, 1019 (D. Or. 1997) (determining that long-term application of INFISH is inadequate to fulfill the Forest Service’s viability responsibilities to bull trout).

Despite these deficiencies, INFISH has been the management benchmark for bull trout for the last twenty years. In the Proposed Action, the Forest is further weakening INFISH’s already insufficient management plan, posing significant risks to the survival of bull trout and other native fish.

#### **B. The Proposed Action ignores INFISH’s management direction**

Despite INFISH’s deficiencies, the Proposed Action provides even feebler protections for bull trout. INFISH provided a two-pronged management approach that provided both site-specific and broad-scale protections for bull trout. The Proposed Action uses a weaker, single prong approach that drops all broad-scale protections and weakens site-specific standards for bull trout. It removes many of INFISH’s important management elements, selecting certain components and ignoring others.

In its revised state, the Proposed Action does not expressly refer to the substance of INFISH. The Forest claims that the proposed management standards and guidelines are being carried over from INFISH and still favor native fish, especially within RHCAs, describing appropriate vegetation management scenarios that do not inhibit riparian objectives. However, the Forest puts forth mostly guidelines and some standards to maintain RHCA and stream processes and function rather than numerical RMOs. Watershed analysis will not be a plan component requirement however; site-specific documentation to enter RHCAs for vegetation management will be a requirement.

The Riparian Goals outlined in INFISH establish an “expectation of the characteristics of healthy, functioning watersheds, riparian areas, and associated fish habitats.” (INFISH at A-1). These Riparian Goals are comprehensive and focus on ensuring the integrity of aquatic and riparian habitats to support species that depend on those habitats. (INFISH at A-1 to A-2). Instead of providing specific Riparian Goals, the Proposed Action provides a selection of “desired conditions” that are primarily discretionary guidelines. In short, the Proposed Action replaces INFISH’s measurable goals with conditions that are not required but merely desired.

For example, INFISH provides the Riparian Goal to have “water quality that provides for stable and productive riparian and aquatic ecosystems.” (INFISH at A-1). The Proposed Action includes a few

desired conditions for watersheds that mention water quality but do not capture INFISH's goal of providing for stable and productive riparian and aquatic ecosystems. By focusing on long-term water quality impacts and ignoring water quality impacts in the short term, bull trout could go extinct under the Proposed Action. Furthermore, there is a key distinction between INFISH's use of the phrase "stable and productive" versus the Proposed Action's use of "able to respond to disturbances".

Although it asserts that its standards and guidelines are "equivalent" to INFISH's, the Proposed Action lacks measurable, mandatory imperatives. It trades out specific RMOs, RHCAs, and standards for vague, primarily discretionary guidelines. It provides that a standard is a "mandatory constraint on project and activity decision making," while a guideline is a "constraint on project and activity decision-making that allows for departure from its terms, so long as the purpose of the guideline is met." (PA at 15-16). In so doing, it fails to provide standards for water and riparian areas. Moreover, the Proposed Action's standards and guidelines may fail to ensure that "riparian-dependent resources receive primary emphasis," as specified in INFISH. WildEarth Guardians takes issue with each and every standard, as the Proposed Action has diluted INFISH's standards.

## **1. Riparian Goals**

The Riparian Goals outlined in INFISH establish an "expectation of the characteristics of healthy, functioning watersheds, riparian areas, and associated fish habitats." (INFISH at A-1). These Riparian Goals are comprehensive and focus on ensuring the integrity of aquatic and riparian habitats to support species that depend on those habitats. (INFISH at A-1 to A-2).

While the Flathead Proposed Action does not include any plan components characterized as goals, some of the Plan's "desired conditions" address INFISH's Riparian Goals. A comparison of INFISH's Riparian Goals with various desired conditions from the Proposed Action follows.

INFISH's Riparian Goal (1) is to provide for water quality that provides for stable and productive riparian and aquatic ecosystems. The Proposed Action contains two desired conditions for watersheds that touch on the issue of water quality. However, the Proposed Action lacks the goal of providing for "stable and productive riparian and aquatic ecosystems." Proposed Action Watersheds Desired Condition 01 states that watersheds and aquatic ecosystems should retain "inherent resilience to respond and adjust to disturbances without long-term, adverse changes to their physical or biological integrity." Proposed Action Watersheds Desired Condition 02 is that water quality "meets or exceeds applicable state water quality standards and fully supports beneficial uses." Proposed Action Watersheds Desired Condition 09 is that groundwater quality "meets State of Montana water quality standards and fully supports designated and existing beneficial uses, where attainable." Proposed Action Aquatic Habitat Desired Condition 01 is for water quality that is "reflective of the climate, geology, and natural vegetation of the area. Water quality supports native amphibians and diverse invertebrate communities." These desired conditions are significant changes, as "stable and productive" in INFISH likely means more than simply able to respond to disturbances, and goes above and beyond simply meeting or exceeding legally required water quality standards. Thus, the Proposed Action must capture INFISH's same meaning to provide for stable and productive habitats for native fish.

INFISH's Riparian Goal (5) is to support the diversity and productivity of native and desired non-native riparian plant communities. However, the Proposed Action does not mention diversity or productivity. Proposed Action RHCA Desired Condition 01 is to provide for

ecosystems that support “native and desired non-native plant, vertebrate, and invertebrate communities.” Proposed Action Watersheds Desired Condition 03 is that “[f]loodplains are accessible and sediment deposits from over-bank floods allow floodplain development and the propagation of flood-dependent riparian plant species.” Proposed Action Wetlands Desired Condition 02 is the closest to mentioning diversity, stating that “[n]on-forested areas in and surrounding wetlands (e.g., marshes, wet meadows, sloughs,) are composed of hydrophytic plant and animal communities characteristic of the wetland type contributing to ecological and wildlife habitat diversity.” Productivity is only mentioned in a general overview of bull trout as part of “key desired conditions for RHCAs,” but not as part of any specified desired conditions. (PA at 10). The Proposed Action should remedy this deficiency by mandating site-appropriate diversity of riparian plant communities to support aquatic and riparian species.<sup>4</sup>

INFISH’s Riparian Goal (6b) is for riparian vegetation to provide adequate summer and winter temperatures within riparian and aquatic zones. In the Proposed Action, “stream shading” is mentioned only in the bull trout overview as part of “key desired conditions for RHCAs,” but not as part of any desired conditions. There is no desired condition or standard for providing adequate summer and winter riparian and aquatic temperatures. The Proposed Action must have temperature as a desired condition. Cold water is a key factor related to the health and survival of native trout, especially bull trout. In fact, bull trout are believed to be the most thermally sensitive salmonid native to western Montana, with a marked preference for streams with cold water temperatures. (Fraley and Shepard 1989). The critical habitat designation rule for bull trout cited Fraley and Shepard’s report that the initiation of spawning by bull trout in the Flathead River system appeared to be related to water temperature, with spawning generally initiated when water temperatures dropped below 10 °C (50 °F). 75 Fed. Reg. 2270, 2272 (Jan. 14, 2010). Bull trout are seldom found in streams in which summer maximum temperatures exceed 16°C, and virtually never found in streams that exceed 20 °C. (Dunham et al. 2003; Gamett 2002).<sup>5</sup>

INFISH’s Riparian Goal (6c) is for riparian vegetation to help achieve natural rates of surface erosion, bank erosion, and channel migration. The Proposed Action does not address erosion in riparian areas directly, and only addresses it indirectly through its RHCA Desired Condition 02 that discusses stream channel integrity.

## 2. Riparian Management Objectives (“RMOs”)

INFISH’s RMOs were developed using scientific stream inventory data. The objectives focus on categorical benchmarks for pool frequency, large woody debris, bank stability and lower bank angle, and width to depth ratio.

Table A-1. Interim Riparian Management Objectives

Habitat Feature	Interim Objectives
Pool frequency (all systems)	Varies by channel width (see Table A-2).
Water temperature	No measurable increase in maximum water temperature (7-day moving average of daily maximum temperature measured as the

<sup>4</sup> See also 16 U.S.C. § 1604(g)(3)(B) and 36 C.F.R. § 219.9.

<sup>5</sup> Flathead National Forest Assessment, Part 1, April 2014, at 35.

	average of the maximum daily temperature of the warmest consecutive 7-day period). Maximum water temperatures below 59F within adult holding habitat and below 48F within spawning and rearing habitats.
Large woody debris (forested systems)	East of Cascade Crest in Oregon, Washington, Idaho, Nevada, and western Montana >20 pieces per mile; >12 inch diameter; >35 foot length.
Bank stability (non-forested systems)	>80 percent stable.
Lower bank angle (non-forested systems)	>75 percent of banks with <90 degree angle (i.e., undercut).
Width/depth ratio (all systems)	<10, mean wetted width divided by mean depth.

Table A-2. Interim objectives for pool frequency.

Wetted width (feet)	10	20	25	50	75	100	125	150	200
Pools per mile	96	56	47	26	23	18	14	12	9

The Proposed Action does not contain any RMOs or interim objectives that insist upon science-based benchmarks to guide management. Instead, the Proposed Action states that there will be “standards and guidelines to maintain RHCA and stream processes and function rather than numerical Riparian Management Objectives.” (PA at 10). This suggests that the Proposed Action misconstrues the difference between objectives and standards and guidelines. Typically, objectives facilitate management action toward a specified outcome, while standards and guidelines constrain management actions. Although the Proposed Action provides some guidelines applicable to riparian areas, the guidelines do not address the specific habitat features that INFISH delineated as important for RMOs.

The only standard applicable to RHCAs (or watersheds, aquatic habitat, or aquatic species) states:

“Management activities within RHCAs shall maintain or improve the existing conditions. Short-term effects . . . from activities in the RHCAs may be acceptable when those activities support long-term benefits . . . to the RHCAs and wildlife and aquatic resources.”

In other words, the Proposed Action maintains the status quo and allows degraded conditions so long as they impart some benefit in the long term. This single standard for RHCAs does not mention the watershed or site-specific analysis that INFISH expects for RMOs. Moreover, this standard is not specific about which “existing conditions” require improvement, and it does not provide any reference point for determining whether existing conditions are acceptable or whether satisfactory restoration is occurring.

Instead of a commitment to specific outcomes based on current science, the Proposed Action defers decisions about aquatic habitat objectives to site-specific, project-by-project determinations. This standard also changes the test to be applied to each project. Under INFISH, “retard the attainment of RMOs” means “to slow the rate of recovery below the near natural rate of recovery if no additional human caused disturbance was placed on the system.” (INFISH FONSI at A-3). The Proposed Action simply requires that any of the Plan’s benefits eventually occur in the “long-term.”

The Proposed Action does not address pool frequency and lower bank angle objectives contained in

INFISH's RMOs. While the Proposed Action addresses water temperature and large woody debris for priority watersheds and in a handful of different guidelines, there is no set numerical objective for these habitat features. Similarly, bank stability is only mentioned relative to intermittent streams within priority watersheds. The Proposed action provides that additional protections for intermittent streams "would aid in large woody debris recruitment to the stream network, provide bank stability, and may reduce sediment that is routed to the stream network." (Proposed Action, Appx. E at E-6). The Proposed Action's Watershed Desired Condition 04 addresses the width, depth, and ratio of streams as important for sediment and woody material transport to maintain.

Although the Proposed Action does contain objectives that relate to water quality and riparian areas, it does not specify what it would take to achieve those objectives. Two objectives from the Proposed Action, RHCA Objective 01 and Aquatic Habitat Objective 01, both quantify a number of miles of habitat to restore "structure composition and function of habitat." However, the Proposed Action does not define what that means, which is what the quantified INFISH RMOs provided. Plan components no longer "provide the ecological conditions necessary" to contribute to recovery of bull trout or maintain a viable population.

### **3. Riparian Habitat Conservation Areas ("RHCAs")**

RHCA's are a central feature of INFISH that are carried into the Proposed Action. RHCAs are portions of watersheds where riparian-dependent resources receive primary emphasis and management activities are subject to specific standards and guidelines. RHCAs include traditional riparian corridors, wetlands, intermittent streams, and other areas that help maintain the integrity of aquatic ecosystems by: (1) influencing the delivery of coarse sediment, organic matter, and woody debris to streams; (2) providing root strength for channel stability; (3) shading the stream; and (4) protecting water quality. (INFISH FONSI at A-4).

Instead of implementing INFISH's science-based RMOs for RHCAs, the Proposed Action plans to utilize standards and guidelines to maintain RHCAs and stream processes. The Proposed Action provides certain "desired conditions" for RHCAs to maintain and restore fish habitat, which include: (1) minimizing sediment inputs from non-channelized flows to streams; (2) maintaining instream flows; (3) providing organic matter and large woody debris to streams for cover; (4) providing stream shading; (5) stabilizing banks for channel and stream function integrity; (6) allowing for diversity and productivity of native plant communities in riparian zones; and (7) providing terrestrial wildlife habitat connectivity.

While these desired conditions are indeed worthy, the Proposed Action fails to provide numerical standards and objectives to achieve these conditions. Moreover, the Proposed Action provides that "[d]esired conditions are not commitments or final decisions approving projects and activities." (PA at 15). Standards, on the other hand, are "mandatory constraint[s] on project and activity decision making," that are designed to "help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements." (PA at 15). In other words, while standards are mandatory measures to achieve desired results, desired conditions are merely aspirational.

As mentioned above, the Proposed Action allows short-term impacts to RHCAs when they result from activities that support long-term benefits. Additionally, the Proposed Action permits logging and burning in RHCAs where it supports habitat improvement in the long term and avoids impacts to key species:

Short-term effects . . . from activities in the RHCAs may be acceptable when those activities support long-term benefits . . . to the RHCAs and wildlife and aquatic resources. Silvicultural practices and/or prescribed burning may be conducted in RHCAs to move toward vegetation and fuels management desired conditions where existing aquatic ecosystem conditions can be maintained or improved, soil ecological functioning is protected, and adverse effects to populations of threatened or endangered aquatic or terrestrial species, or species of conservation concern, are avoided.

(PA at 23). There is no such allowance in INFISH. The Forest must provide more guidance on how it plans to balance the Proposed Action's short-term effects to native fish with any long-term benefits.

Furthermore, the Proposed Action's language compromises INFISH's standards for RHCAs in the following ways, potentially making each category smaller:

- It removes "or to the outer edges of riparian vegetation," language from Category 1 RHCA description. (See Glossary, at 157).
- It removes "or to the outer edges of the 100-year floodplain," language from Category 2 RHCA description. (See Glossary, at 157).
- It removes "or to the extent of moderately and highly unstable areas," language from Category 3 RHCA description. (See Glossary, at 157).
- It removes "the extent of landslides and landslide-prone areas," minimum qualifying language from Category 4 RHCA description. (See Glossary, at 157).

#### **4. Standards and Guidelines**

INFISH applies project and site-specific standards and guidelines to all RHCAs and to projects and activities outside RHCAs that could degrade RHCAs. INFISH does not distinguish between standards and guidelines. Because INFISH provides no distinction between the terms, the intent of the words must be taken from their context and use. Almost all of INFISH's standards and guidelines contain imperative verbs that impart a mandatory requirement.

Under the Proposed Action, standards are mandatory and guidelines are discretionary. Although each forestwide direction within the Proposed Action should contain both standards and guidelines, many of the forestwide directions that apply to water and riparian areas fail to include standards.

Standards and guidelines in INFISH are organized by type of project activity. They are listed here, along with a short comparison of how that Flathead Proposed Action addresses the same issue (refer to the source documents for the actual wording).

##### Timber Management

INFISH's TM-1 prohibits timber harvest in RHCAs except for limited circumstances such as to recover from catastrophic natural disasters and perform salvage cutting. The Proposed Action classifies RHCAs as not suitable for timber production, but allows timber harvest in many circumstances.

##### Roads Management

INFISH's RF-2 directs agencies to meet RMOs to avoid effects to fish by completing watershed analyses prior to road or landing construction in RHCAs in priority watersheds, minimizing road and landing locations in RHCAs, implementing a Road Management Plan or TMP with specified elements, avoiding road sediment delivery to streams, avoiding disruption of natural hydrologic flow paths, and avoiding side-casting of soils or snow (prohibited in RHCAs). The Proposed Action's RCHA Guideline 08 states that new roads "*should* not be constructed in RHCAs." (emphasis added). There is no requirement for a road management plan, although there is an Infrastructure desired condition for identifying and managing "road management objectives."

Proposed Action's Infrastructure Guideline 03 provides that roads and trails "*should* have a water drainage system that is hydrologically disconnected from delivering water, sediment, and pollutants to water bodies, (except at designated stream crossings) to maintain the hydrologic integrity of watersheds." (emphasis added). Proposed Action's Infrastructure Guideline 04 provides that roads and trails "*should* avoid lands with high mass wasting potential," in order to "maintain and/or improve watershed ecosystem integrity, and reduce road-related mass wasting and sediment delivery to watercourses. (emphasis added). Infrastructure Guideline 07 states that soil "*should* not be side-cast into watercourses" to reduce sediment delivery to watercourses. (emphasis added). These guidelines need to follow a best management practices standard.

INFISH's RF-3 directs agencies to determine each road's effect on native fish and meet RMOs to avoid adverse impacts. The Proposed Action does not target existing roads to reduce effects on native fish.

INFISH's RF-4 does not allow the construction of new and improvement of existing stream crossing structures if "improvements would/do pose a substantial risk to riparian conditions" and then defines what "substantial risk" structures would be. The Proposed Action's Infrastructure Guideline 05 addresses stream-crossing structures, but does not address or prioritize those structures that pose a substantial risk.

INFISH's RF-5 directs agencies to provide and maintain fish passage at all road crossings of existing and potential fish-bearing streams. The Proposed Action's Infrastructure Guideline 08 provides that stream crossing sites should provide and maintain fish passage for native fish or other desired aquatic organisms, except where it is desirable to prevent spread of undesirable species.

#### Recreation Management

INFISH's RM-1 directs agencies to create recreation facilities (including trails) in a manner that does not hinder RMO attainment and avoids adverse effects on inland native fish. The Proposed Action's Guideline for Recreation 02 provides that recreation sites should not be developed in RHCAs, should not measurably lower river flows, and should not discharge pollutants directly to groundwater.

INFISH's RM-3 directs agencies to address RMO attainment and effect on inland native fish in recreation management plans. The Proposed Action has no standards or guidelines for recreation management plans in relation to riparian areas, despite some forms of recreation such as OHV use having potentially huge impact on riparian areas.

#### Minerals Management

INFISH's MM-1 to MM-6 include standards or guidelines that address mineral operations or

structures in riparian areas so as not to adversely affect inland native fish. The Proposed Action has no other standards or guidelines that address mineral operations or structures in riparian areas.

### Lands

INFISH's LH-1 requires instream flows and habitat conditions for hydroelectric and other surface water development proposals that maintain or restore riparian resources, favorable channel conditions, and fish passage, reproduction, and growth. The Proposed Action has no standards or guidelines for hydroelectric or surface water development and does not even address those activities.

INFISH's LH-2 directs agencies to locate new hydroelectric ancillary facilities outside of RHCAs. Ensure that existing, essential ancillary facilities inside RHCAs do not prevent attainment of the RMOs and avoid effects on inland native fish. The Proposed Action has no standards or guidelines for hydroelectric development.

INFISH's LH-3 directs agencies to issue leases, permits, rights-of-way, and easements to avoid effects that would prevent RMO attainment and avoid effects on inland native fish. The Proposed Action has no standards or guidelines for leases, permits, rights-of-way or easements in relation to riparian areas.

INFISH's LH-4 directs agencies to use land acquisition, exchange, and conservation easements to meet RMOs and facilitate restoration of fish stocks and other species at risk of extinction. The Proposed Action has no standards or guidelines regarding land ownership changes or conservation easements in relation to riparian areas.

### General Riparian Area Management

INFISH's RA-1 directs agencies to identify and cooperate with governments to secure instream flows needed to maintain riparian resources, channel conditions, and aquatic habitat. The Proposed Action has no standards or guidelines that address instream flow.

INFISH's RA-3 directs agencies to apply herbicides, pesticides, and other toxicants and chemicals in a manner that does not prevent RMO attainment and avoids adverse effects to native fish. The Proposed Action Infrastructure Standard 05 prohibits direct chemical application to watercourses during dust abatement applications on roads. No other standards or guidelines address application of herbicides, pesticides or other toxicants or chemicals in riparian areas.

INFISH's RA-4 prohibits storage of fuels and other toxicants within RHCAs, prohibits refueling within RHCAs unless there are no alternatives, and specifies that refueling sites in RHCAs "must be approved" by the Forest Service or BLM and have a spill containment plan. The Proposed Action RHCA Guideline 06 merely provides that refueling, equipment maintenance, and storage of fuels and other toxicants should be avoided in RHCAs.

### Watershed and Habitat Restoration

INFISH's WR-1 directs to design and implement watershed restoration projects in a manner that promotes the long-term ecological integrity of ecosystems, conserves the genetic integrity of native species, and contributes to attainment of RMOs. The Proposed Action has no standards or guidelines that address watershed restoration projects.



In the Proposed Action, the Forest must understand and implement measures that follow the best available science. The planning regulations require that forest planning decisions must follow the best available science. 36 C.F.R. § 219.3. However, the Proposed Action does not rely on the best available science and, instead, departs from the forest planning requirement in favor of weaker management direction.

## **5. Priority Watersheds**

In the Proposed Action, the Forest doesn't have a process for evaluating the risk caused by individual projects in priority watersheds.

INFISH identified priority watersheds in Oregon, Idaho, Montana, Nevada, and Washington. National Forests designated priority watersheds using the following criteria:

1. Watersheds with excellent habitat or strong assemblages of inland native fish, with a priority on bull trout populations.
2. Watersheds that provide for meta-population objectives.
3. Degraded watersheds with a high restoration potential.

INFISH's purpose of designating priority watersheds is "to provide a pattern of protection across the landscape where habitat for inland native fish would receive special attention and treatment." Priority watersheds in good condition are meant to serve as anchors for the potential recovery of depressed stocks, and also provide colonists for adjacent areas where land management or natural events have degraded habitat. Lower quality habitat areas with high restoration potential would become future sources of good habitat with the implementation of a comprehensive restoration program. Priority watersheds have the highest priority for restoration, monitoring and watershed analysis.

Like INFISH, the Proposed Action also designates priority watersheds. (Appendix E). However, the Proposed Action proposes to maintain riparian areas through RHCAs and standards and guidelines. Specifically, the Proposed Action provides that RHCAs in priority watersheds must include, at a minimum, the area from the edges of the stream channel, wetland, or landslide prone terrain to a distance equal to the height of one site-potential tree, or 100 feet slope distance, whichever is greater. Essentially, the Forest is ignoring actual risks created by individual projects as long as they honor the RHCA buffers.

Similar to INFISH's classifications, the Proposed Action uses three watershed condition classes to describe the degree or level of watershed integrity:

1. Class 1 = Functioning Properly
2. Class 2 = Functioning at Risk
3. Class 3 = Impaired Function

In the Proposed Action, the Forest Service identified 5 Class 2 watersheds and 176 Class 1 watersheds. There were no Class 3 watersheds identified. Functioning at Risk, Class 2 watersheds include the moderate priority Middle Logan and the following high priority watersheds: Cold Creek, Jim Creek, Beaver Creek, and Meadow Creek.

The Proposed Action also proposes priority watersheds for primary bull trout streams to provide

an extra level of protection for the fish. These watersheds overlap with designated “critical habitat” for bull trout. Management in these watersheds would differ from other watersheds in that the riparian habitat conservation area would be 100 feet for intermittent streams rather than 50 feet. See Appendix E, at E-6 and E-7 for a list of the bull trout priority watersheds.

Despite the fact that the Proposed Action has identified priority watersheds, it provides no further protections for bull trout within the standards for priority watersheds. Even under the weak INFISH there were standards designed to protect bull trout. The Proposed Action provides no heightened standards for priority watersheds. It provides no management objectives for category 2 “Functioning at Risk” watersheds. (Appendix E). It provides almost nothing extra to protect bull trout except for widening the buffer from 50 to 100 feet. This is a meaningless exercise with weak guidelines. Bull trout generally don’t really reside in intermittent streams and prefer other, more suitable habitat.

The Proposed Action should mandate more robust monitoring standards. In order to know whether forest management is responsibly restoring watersheds and supporting native fish populations on the Flathead, there must be a more active monitoring component to the Forest Plan. It is important to learn whether populations of bull trout are, in fact, becoming more robust. Knowing how many fish there are, how much habitat supports those fish, and what is the reproductive success rate will allow forest planners to make informed decisions so as not to harm native fish.

## **6. Watershed Analysis**

INFISH describes watershed analysis as a “systematic procedure for determining how a watershed functions in relation to its physical and biological components.” (INFISH FONSI at A-14). In INFISH, watershed analysis is “a prerequisite for determining which processes and parts of the landscape affect fish and riparian habitat, and is essential for defining watershed specific boundaries for Riparian Habitat Conservation Areas and for Riparian Management Objectives.” (INFISH FONSI at A-14). It was also a requirement associated with these standards and guidelines:

- TM-1 required watershed analysis prior to salvage logging in RHCAs.
- RF-2 required watershed analysis prior to construction of new roads or landings in RHCAs in within priority watersheds.
- RM-1 required watershed analysis prior to construction of new recreation facilities in RHCAs within priority watersheds.

The Proposed Action has no requirements for watershed analysis. It explicitly substitutes a requirement for “site-specific documentation to enter RHCAs for vegetation management.” (INFISH at 10). It rejects the idea that understanding the broader scale ecological context is necessary for identifying riparian management zones or objectives and taking certain kinds of management actions that could affect riparian areas.

In summary, while INFISH may be inadequate as a long-term management strategy for native fish, the Proposed Action’s discretionary objectives and guidelines fail to achieve even INFISH’s level of protection for inland native fish.

This begs questions of how the Proposed Action will affect aquatic ecosystem integrity and bull trout. The Flathead National Forest must consider and address these issues in its environmental analysis and subsequent endangered species analysis. These analyses must provide a basis for

determining whether the plan components could provide ecological conditions that contribute to recovery of bull trout and provide habitat for viable populations of bull trout once they are recovered. To do this, the Forest must explain how the Proposed Action will not only address INFISH's specific plan components, but improve upon them. The analysis also needs to consider the best available science, spatial distribution and habitat aspects of bull trout and westslope cutthroat trout, as well as the relative importance of different subpopulations, especially in the context of climate change.

#### **Recommendations:**

- Standards are incorporated into the Forest Plan Revision that at a minimum meet the standards of INFISH.
- Any variation from INFISH standards is documented by reference to intervening best available science, not vague and unsupported conclusory statements.
- We are fully supportive of the statements made by American Rivers et al. in their Flathead National Forest Draft Proposed Action scoping letter dated May 15, 2015, that streams with critical habitat for sensitive, threatened or endangered species should be given a Fisheries or Wildlife Outstandingly Remarkable Value (ORV) as a matter of definition of the words "rare" and "significant," of which they are both. We also support and incorporate herein the specific eligibility suggestions they make in regards to stream segments that serve as critical bull trout habitat.

#### **C. Bull Trout and the ESA**

WildEarth Guardians supports management direction and other actions that ameliorate the systematic marginalization of bull trout and destruction of bull trout habitat. However, as currently written, the Proposed Action will negatively impact watersheds, riparian areas, and bull trout habitat. The Forest must revisit the Proposed Action and provide measurable, science-based, mandatory management imperatives in order to make any real progress towards ensuring the survival and recovery of bull trout. Furthermore, the Forest must engage in consultation with the Fish and Wildlife Service under section 7 of the ESA in order to insure that its actions on the Flathead do not jeopardize the continued existence of bull trout and do not adversely modify bull trout critical habitat.

Bull trout are a highly sensitive freshwater fish species. U.S. Fish & Wildlife Serv., Bull Trout Facts, at 2 (1998). They are native to cool, stable streams throughout western North America, including western Montana. 75 Fed. Reg. 63,898, 63,898 (Oct. 18, 2010). Due to their life history requirements, bull trout are more vulnerable to increased water temperature, poor water quality, and low flow conditions than many other salmonids. Bull Trout Facts, at 2. Past and continuing land management activities have degraded stream habitat, especially along larger river systems and in valleys, to the point where bull trout can no longer survive or reproduce successfully. *Id.*

Bull trout are currently listed as "threatened" under the ESA. 63 Fed. Reg. 31,647, 31,647 (June 10, 1998). In 1998, when Fish and Wildlife listed bull trout, the agency estimated that bull trout were extirpated from approximately 60 percent of their historic range in the coterminous United States. *Id.* at 31651; Revised Draft Recovery Plan for Bull Trout, at iv. Since they were listed, there has been very little change in the general distribution of bull trout. Revised Draft Recovery Plan for Bull Trout, at iii-iv. In many watersheds, the only remaining bull trout are small populations of resident fish isolated in headwater streams. Bull Trout Facts, at 2.

Bull trout require cold, fresh water with stable stream channels and loose, clean gravel for

spawning. 63 Fed. Reg. at 31,648. Bull trout prefer habitats with complex and diverse cover and rocky bottoms for rearing offspring. *Id.* Deeper pools and ponds containing woody debris, undercut banks, and boulders are optimal features of bull trout habitat. *Id.* The primary causes of the bull trout's decline include: poor water quality exacerbated by logging, grazing, and road building; habitat degradation and fragmentation through urbanization; and blockage of migratory corridors caused by dams with inadequate passages, mining, poor management of fisheries resulting in over-fishing and introduced, non-native species that directly compete with, prey upon, or hybridize with bull trout. *Id.* at 31,647-48; 64 Fed. Reg. 17112 (April 8, 1999).

After years of legal and political wrangling, Fish and Wildlife finally designated critical habitat for bull trout on October 18, 2010. 75 Fed. Reg. 63898 (Oct. 18, 2010). The 2010 critical habitat rule designated a total of 19,729 miles of stream and 488,251.7 acres of reservoirs and lakes in the States of Washington, Oregon, Nevada, Idaho, and Montana as critical habitat for the bull trout. The rule defines bull trout critical habitat as the bed and banks of water bodies, and contains primary constituent elements that include: 1) springs, seeps, groundwater sources, and subsurface water connectivity; 2) migration habitats with minimal physical, biological, or water quality impediments between spawning, rearing, overwintering, and freshwater and marine foraging habitats; 3) an abundant food base, including terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish; 4) complex river, stream, lake, reservoir, and marine shoreline aquatic environments and processes that establish and maintain these aquatic environments; 5) water temperatures ranging from 2 °C to 15 °C, with adequate thermal refugia available for temperatures that exceed the upper of this range; 6) in spawning and rearing areas, substrate of sufficient amount, size, and composition to ensure success of egg and embryo overwinter survival; 7) a natural hydrograph; 8) sufficient water quality and quantity such that normal reproduction, growth, and survival are not inhibited; and 9) sufficiently low occurrence of nonnative predatory or competing species, that, if present, are adequately temporally and spatially isolated from bull trout. 75 Fed. Reg. 63898, 63931-32 (Oct. 18, 2010).

Through consultation with Fish and Wildlife, the Flathead NF must answer questions of how the Proposed Action will affect aquatic ecosystem integrity and how it will affect bull trout. The Forest must consider and address these issues in its environmental analysis and subsequent endangered species analysis. These analyses must provide a basis for determining whether the plan components could provide ecological conditions that contribute to recovery of bull trout and provide habitat for viable populations of bull trout once they are recovered. To do this, the Forest must explain how the Proposed Action will not only address INFISH's specific plan components, but improve upon them. The analysis also needs to consider the spatial distribution and habitat aspects of bull trout and westslope cutthroat trout, as well as the relative importance of different subpopulations, especially in the context of climate change.

As the Forest is well aware, it may not proceed without section 7 consultation to determine the Proposed Action's impacts on bull trout. The Forest must consult with the Fish and Wildlife Service to insure that present and future agency actions on the Flathead do not jeopardize the continued existence of bull trout and do not adversely modify bull trout critical habitat.

## **V. Designated, Management and Geographic Areas**

### **A. Regulatory and Policy Framework Under the 2012 Planning Rule**

The planning rule provides three general approaches for administratively protecting important

conservation areas in a forest plan. The agency can establish designated areas (for the purposes of this letter, we are including areas recommended for designation in this category), geographic areas, and management areas.

The first approach is for the Forest Service to establish **designated areas**. The rule defines a designated area as “[a]n area or feature identified and managed to maintain its unique special character or purpose.”<sup>6</sup> Specific to designated areas, the planning rule requires the following of the Forest Service:

- Identify areas that may be suitable for inclusion in the National Wilderness Preservation System (NWPS), and determine whether to recommend any such lands for wilderness designation;
- Identify the eligibility of rivers for inclusion in the National Wild and Scenic Rivers System; and
- Identify existing designated areas (e.g., botanical areas, zoological areas, paleontological areas, etc.), and determine whether to recommend any additional areas for designation.<sup>7</sup>

The planning rule requires that the plan must include plan components, including standards or guidelines that will ensure the appropriate management of designated areas or recommended designated areas.<sup>8</sup> The Forest Service Handbook offers direction regarding the development of plan components for designated areas and recommended designated areas:

The Responsible Official shall include plan components that will provide for appropriate management of designated areas based on the applicable authorities and the specific purposes for which each area was designated or recommended for designation. Uses and management activities are allowed in designated areas to the extent that these uses are in harmony with the purpose for which the area was designated. For recommended designated areas, the uses and activities allowed should be compatible with the basis of the recommendation.<sup>9</sup>

Further management of designated areas, in addition to plan components, is guided by policy in the Forest Service directives at Forest Service Manual 2300.

The second approach for administratively protecting important conservation areas in a forest plan is for the Forest Service to establish **geographic areas**. The planning rule defines geographic area as “a spatially contiguous land area identified within the planning area” for which specific management direction (i.e., a set of plan components) is developed.<sup>10</sup>

The third approach is for the Forest Service to establish **management areas** that are protective. The rule defines management area as “a land area identified within the planning area that has the same set of applicable plan components. A management area does not have to be spatially contiguous.”<sup>11</sup>

Simply put, “geographic areas are based on place, while management areas are based on

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<sup>6</sup> 36 C.F.R. § 219.19

<sup>7</sup> 36 C.F.R. §§ 219.7(c)(2)(vii), 219.19 (definition of designated areas calls out Research Natural Areas as an example of an administratively designated area).

<sup>8</sup> 36 C.F.R. § 219.10(b)(1)

<sup>9</sup> FSH 1909.12, § 24.2(1)(b)

<sup>10</sup> 36 C.F.R. § 219.19

<sup>11</sup> *Ibid.*

purpose.”<sup>12</sup> Every plan is required to have management areas or geographic areas or both.<sup>13</sup> Forest plans use management areas or geographic areas to describe how plan components apply to specific parcels of land, with locations shown on maps. Note that designated areas, management areas, and geographic areas can overlap.

## **B. Factors to Consider in the Environmental Analysis**

The National Environmental Policy Act (NEPA) requires federal agencies to assess the direct, indirect and cumulative environmental impacts of proposed actions, taking a “hard look” at environmental consequences and performing an analysis commensurate with the scale of the action at issue. 42 U.S.C. § 4321 *et seq*; 40 C.F.R. § 1508.8; *see also Metcalf v. Daley*, 214 F.3d 1135, 1151 (9<sup>th</sup> Cir. 2000); *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 348 (1989). Forest planning affects the entire landscape and can only be thoroughly and properly assessed by considering potential impacts at a comparable level. In this section of our letter, we raise several significant issues pertaining to designated, management, and geographic areas that the Forest Service must analyze in its impacts analysis in order to satisfy NEPA’s requisite “hard look” analysis. Further, many of the issues raised pertain to the Forest Service’s ability to achieve the rule’s substantive requirement to provide for ecological sustainability, integrity and diversity. Therefore, it is necessary for the Flathead NF to utilize this information and analyze the impacts that we raise in its EIS in order to fulfill the rule’s substantive mandates.

### **1. Protection and Restoration of Roadless Lands**

Undeveloped natural lands provide numerous ecological benefits. They safeguard biodiversity, enhance ecosystem representation (see discussion above), facilitate connectivity (Loucks et al. 2003; USDA 2001; Crist and Wilmer 2005; Wilcove 1990; The Wilderness Society 2004; Strittholt and Dellasala 2001; DeVelice and Martin 2001), and provide high quality or undisturbed water, soil, and air resources (Anderson et al. 2012; DellaSalla et al. 2011). They also serve as ecological baselines to facilitate better understanding of our impacts to other landscapes (Arcese and Sinclari 1997).

Forest Service roadless lands, in particular, are heralded for their conservation values. Those values are described at length in the preamble of the Roadless Area Conservation Rule (RACR)<sup>14</sup> and in the Final Environmental Impact Statement (FEIS) for the RACR.<sup>15</sup> They include: high quality or undisturbed soil, water, and air; sources of public drinking water; diverse plant and animal communities; habitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land; primitive, semi-primitive non-motorized, and semi-primitive motorized classes of dispersed recreation; reference landscapes; natural appearing landscapes with high scenic quality; traditional cultural properties and sacred sites; and other locally identified unique characteristics (e.g., uncommon geological formations, unique wetland complexes, exceptional hunting and fishing opportunities).

Numerous articles in the scientific literature similarly recognize the contribution of roadless and undeveloped lands to biodiversity, connectivity, and conservation reserve networks. For example, Loucks et al. (2003) examined the potential contributions of roadless areas to the conservation of

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<sup>12</sup> *Id.*

<sup>13</sup> 36 CFR § 219.7(d)

<sup>14</sup> 66 Fed. Reg. at 3245-47.

<sup>15</sup> Final Environmental Impact Statement, Vol. 1, 3-3 to 3-7, *available at* <http://www.fs.usda.gov/roaddocument/roadless/2001roadlessrule/finalruledocuments>.

biodiversity, and found that more than 25% of IRAs are located in globally or regionally outstanding ecoregions<sup>16</sup> and that 77% of IRAs have the potential to conserve threatened, endangered, or imperiled species. Arcese and Sinclari (1997) highlighted the contribution that IRAs could make toward building a representative network of conservation reserves in the United States, finding that protecting those areas would expand eco-regional representation, increase the area of reserves at lower elevations, and increase the number of large, relatively undisturbed refugia for species. Crist et al. (2005) looked at the ecological value of roadless lands in the Northern Rockies and found that protection of national forest roadless areas, when added to existing federal conservation lands in the study area, would: 1) increase the representation of virtually all land cover types on conservation lands at both the regional and ecosystem scales, some by more than 100%; 2) help protect rare, species-rich, and often-declining vegetation communities; and 3) connect conservation units to create bigger and more cohesive habitat “patches.”

Roadless lands are also responsible for higher quality water and watersheds. Anderson et al. (2012) assessed the relationship of watershed condition and land management status, and found a strong spatial association between watershed health and protective designations. Dellasalla et al. (2011) found that undeveloped and roadless watersheds are important for supplying downstream users with high-quality drinking water, and that developing those watersheds comes at significant costs associated with declining water quality and availability. The authors recommend a light-touch ecological footprint to sustain healthy watersheds and the many other values that derive from roadless areas.

The Forest Service, National Park Service, and U.S. Fish and Wildlife Service recognize that protecting and connecting undeveloped areas is an important action agencies can take to enhance climate change adaptation. For example, the Forest Service’s National Roadmap for Responding to Climate Change (2011) establishes that increasing connectivity and reducing fragmentation are short- and long-term actions the agency should take to facilitate adaptation to climate change.<sup>17</sup> The National Park Service also identifies connectivity as a key factor for climate change adaptation, along with establishing “blocks of natural landscape large enough to be resilient to large-scale disturbances and long-term changes.” The agency states that “[t]he success of adaptation strategies will be enhanced by taking a broad approach that identifies connections and barriers across the landscape. Networks of protected areas within a larger mixed landscape can provide the highest level of resilience to climate change.”<sup>18</sup> Similarly, the Climate Adaptation Strategy adopted by a

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<sup>16</sup> Loucks et al utilize an ecosystem ranking system developed by Ricketts et al. (1999) found at Ricketts, T. H., E. Dinerstein, D. M. Olson, C. J. Loucks, W. Eichbaum, D. DellaSala, K. Kavanaugh, P. Hedao, P. T. Hurley, K. M. Carney, R. Abell, and S. Walters. 1999. *Terrestrial ecoregions of North America: a conservation assessment*. Island Press, Washington, D.C., USA. (“Ricketts et al. (1999) classified the biological importance of each ecoregion based on species distribution, i.e., richness and endemism, rare ecological or evolutionary phenomena such as large-scale migrations or extraordinary adaptive radiations, and global rarity of habitat type, e.g., Mediterranean-climate scrub habitats. They used species distribution data for seven taxonomic groups: birds, mammals, butterflies, amphibians, reptiles, land snails, and vascular plants (Ricketts et al. 1999). Each category was divided into four rankings: globally outstanding, high, medium, and low. The rankings for each of the four categories were combined to assign an overall biological ranking to each ecoregion. Ecoregions whose biodiversity features were equaled or surpassed in only a few areas around the world were termed “globally outstanding.” To earn this ranking, an ecoregion had to be designated “globally outstanding” for at least one category. The second-highest category, or continentally important ecoregions, were termed “regionally outstanding,” followed by “bioregionally outstanding” and “nationally important” (Ricketts et al. 1999).”)

<sup>17</sup> Forest Service, FS-957b, *National Roadmap for Responding to Climate Change* at 26 (2011), available at <http://www.fs.fed.us/climatechange/advisor/roadmap.html>.

<sup>18</sup> National Park Service, Climate Change Adaptation, <http://www.nps.gov/subjects/climatechange/adaptation.htm> (last visited Dec. 23, 2014). See also National Park Service, *Climate Change Response Strategy* (2010), available at [http://www.nature.nps.gov/climatechange/docs/NPS\\_CCRS.pdf](http://www.nature.nps.gov/climatechange/docs/NPS_CCRS.pdf) (Objective 6.3 is to “Collaborate to develop cross-

partnership of governmental agencies including the U.S. Fish and Wildlife Service calls for creating an ecologically-connected network of conservation areas.<sup>19</sup>

The 2012 planning rule's substantive ecological sustainability provision sanctions this reserve design and landscape connectivity approach, requiring the Forest Service to formulate "plan components, including standards and guidelines, to maintain or restore [the] structure, function, composition, and connectivity" of terrestrial and aquatic ecosystems and watersheds, taking into account stressors such as climate change.<sup>20</sup>

As detailed above, roadless lands provide tremendous ecological benefits for grizzlies (and many other plant and animal species). Also as noted above, the wilderness evaluation completed to-date is cursory and incomplete, making unsupported decisions without explanation as to why certain acres that are eligible for wilderness have been dropped from further consideration.

The Flathead NF must analyze and disclose the impact of not protecting the conservation values of those non-IRA lands that are identified in the wilderness inventory but that are not recommended for wilderness. Specifically, the Flathead NF must analyze the impacts of 1) not protecting the wilderness character of these lands, which includes those values identified in the Chapter 70 wilderness evaluation process, and 2) not protecting the roadless character of these lands, which includes the ecological values summarized above. This analysis must include the effect on the Forest Service's ability to achieve the rule's substantive requirement to "maintain or restore ecological integrity of terrestrial and aquatic ecosystems and watersheds in the plan area" taking into account "structure, function, composition, and connectivity."<sup>21</sup>

Further, the value and benefits of conserved and connected undeveloped lands on the Flathead NF are that much more important in light of climate change. The Flathead NF must analyze and disclose the value of a system of protected lands (e.g., wilderness, recommended wilderness, IRAs, RNAs, relevant designated areas) to species, including their ability to move across the landscape, taking into account predicted environmental conditions and trends.

### **Recommendations:**

Based on what we read in the Proposed Action, it seems clear that the Chapter 70 wilderness evaluation is not yet complete. The Forest Service must analyze in its impacts analysis the extent to which roadless lands across the Flathead NF, including those identified in the Chapter 70 wilderness inventory, contribute to maintaining or restoring:

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jurisdictional conservation plans to protect and restore connectivity and other landscape-scale components of resilience.").

<sup>19</sup> See National Fish, Wildlife and Plants Adaptation Partnership, *Climate Adaptation Strategy* at 55-59 (2012), available at <http://www.wildlifeadaptationstrategy.gov/strategy.php>. Relevant goals and strategies include:

Goal 1: Conserve habitat to support healthy fish, wildlife, and plant populations and ecosystem functions in a changing climate.

Strategy 1.1: Identify areas for an ecologically-connected network of terrestrial, freshwater, coastal, and marine conservation areas that are likely to be resilient to climate change and to support a broad range of fish, wildlife, and plants under changed conditions.

Strategy 1.2: Secure appropriate conservation status on [high priority areas] to complete an ecologically-connected network of public and private conservation areas that will be resilient to climate change and support a broad range of species under changed conditions.

Strategy 1.4: Conserve, restore, and as appropriate and practicable, establish new ecological connections among conservation areas to facilitate fish, wildlife, and plant migration, range shifts, and other transitions caused by climate change.

<sup>20</sup> 36 C.F.R. § 219.8(a)(1).

<sup>21</sup> *Ibid.*



- Air, soil, and water quality;<sup>22</sup>
- Ecological integrity – including structure, function, composition, and connectivity – of terrestrial and aquatic ecosystems and watersheds;<sup>23</sup>
- System drivers, including dominant ecological processes, disturbance regimes, and stressors, such as natural succession, wildland fire, invasive species, and climate change; and the ability of terrestrial and aquatic ecosystems on the plan area to adapt to change;<sup>24</sup>
- Wildland fire and opportunities to restore fire adapted ecosystems;<sup>25</sup>
- Opportunities for landscape scale restoration;<sup>26</sup>
- The diversity of ecosystems and habitat types throughout the plan area;<sup>27</sup>
- Key characteristics associated with terrestrial and aquatic ecosystem types;<sup>28</sup>
- Rare aquatic and terrestrial plant and animal communities;<sup>29</sup> and
- The diversity of native tree species similar to that existing in the plan area.<sup>30</sup>

The Flathead NF must analyze the impacts of not protecting the wilderness character of lands identified in the wilderness inventory. The Flathead NF must analyze the impacts that each alternative will have on roadless lands and their associated ecological and social benefits listed above. We also request that the impacts analysis identify key landscapes where roadless lands are providing these ecological and social benefits, and describe the more localized impacts that each alternative will have on the benefits these places provide.

The Flathead NF must also analyze and disclose the value of a system of protected lands (e.g., wilderness, recommended wilderness, IRAs, RNAs, relevant designated areas) to species, including their ability to move across the landscape, taking into account predicted environmental conditions and trends.

We request that the agency identify unique elements that exist on the Flathead NF, describe their current status of protection, and administratively designate in multiple alternatives including the preferred alternative those that are under-protected in order to ensure that remarkable natural and cultural resources on the forest are protected. We request that the EIS analyze and disclose the extent to which each alternative will contribute to/detract from protecting and interpreting these unique elements.

## 2. Socio-Economic Benefits of Wilderness

In addition to its ecological values, protected areas, including wilderness, are important because they contribute to people's social and economic well-being. When analyzing the impacts of recommending areas for wilderness, we request that the agency include important socio-economic considerations, including the positive impacts, of wilderness. This section offers information about some of these impacts for the agency to consider in its impacts analysis.

- a. Participation in outdoor, nature-based recreation is steady or on the rise.

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<sup>22</sup> 36 C.F.R. § 219.8(a)(2)

<sup>23</sup> *Id.* § 219.8(a)(1)

<sup>24</sup> *Id.* § 219.8(a)(1)(iv)

<sup>25</sup> *Id.* § 219.8(a)(1)(v)

<sup>26</sup> *Id.* § 219.8(a)(1)(vi)

<sup>27</sup> *Id.* § 219.9(a)(2)

<sup>28</sup> *Id.* § 219.9(a)(2)(i)

<sup>29</sup> *Id.* § 219.9(a)(2)(ii)

<sup>30</sup> *Id.* § 219.9(a)(2)(iii)

Recreational surveys show that Americans are participating in increasing numbers in recreational pursuits that natural areas such as wilderness provide. According to Cordell (2008a), both the total number of Americans and the total number of days annually in which we participate in nature-based recreation have grown since 1994. In particular, viewing, photographing, and studying nature (e.g., wildlife and birds), have grown strongly and primitive camping and backpacking days increased 12% and 24%, respectively, between 2000 and 2008 (Cordell 2008a).

In addition, a significant percentage of Americans participate in outdoor recreation. For instance,

- Across the country, an estimated 35% of Americans, both urban and rural residents, participated in birding between 2004 and 2007 (Cordell 2008b).
- More than 90 million U.S. residents participated in some form of wildlife-related recreation in 2011. Participation is up 3% from five years earlier. The number of American's who hunted or fished rose from 33.9 million in 2006 to 37.4 million in 2011 (USFWS 2011).
- Americans take between 16 and 35 million trips to wilderness each year on their own or with a guide to hike, backpack, camp, climb mountains, ride horses, ski, raft, canoe, take pictures, view wildlife, or stargaze (Cordell 2005).

Specific to the Flathead NF, about 22 percent of the visits to the Flathead NF in 2010 had a wildlife-related activity as the main activity (hunting, fishing, viewing wildlife).<sup>31</sup> Nature-related activities such as relaxing, viewing nature, and hiking make up three of the top five main activities on the Flathead NF (the other two being hunting and downhill skiing).<sup>32</sup> The top four activities for forest visitors in 2010 were downhill skiing (29 percent), hunting (17 percent), hiking (12 percent) and viewing natural features (6 percent). Together these four activities account for almost 65 percent of total visitation.<sup>33</sup> By comparison, OHV use constitutes roughly 1% of primary activities.<sup>34</sup>

b. Wilderness visitation is predicted to continue growing.

- The number of days Americans visited wilderness and other primitive areas increased 12% between 2000 and 2008. The number of participants visiting a wilderness area increased 3% in the same time period (Cordell 2008).
- Bowker predicts that population growth in expanding cities in the West will result in increased use in wildernesses in the vicinity (Bowker et al. 2006).
- It can also be expected that population increases in the communities adjacent to the National Forests will occur because of their attractiveness in terms of the availability of quality outdoor recreation experiences, clean air and water, and a natural setting (USDA 2005).

c. Economics benefits of protected public lands

Based on a wealth of existing rigorous and scientifically validated research, the general rule is that there is a neutral-to-positive relationship between the presence and extent of wilderness and other protected areas on one hand, and the economic performance of local economies and the economic benefits available to nearby residents on the other (see Appendix C). Here are just a few examples from this body of research:

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<sup>31</sup> Assessment of the Flathead National Forest, Part 2, at 79. April, 2014.

<sup>32</sup> *Id.* at 96.

<sup>33</sup> *Id.* at 169.

<sup>34</sup> *Id.*

- A recent study of the Rio Grande del Norte National Monument found that the expected annual economic impacts of National Monument designation could reach \$32.2 million, which represents an increase of approximately \$15 million in regional economic activity. Following Monument designation, operations and visitor spending associated with the Rio Grande del Norte area would be expected to increase to about 591 jobs, an increase of 279 jobs (BBC Research & Consulting 2012).
- Protected public lands can and do play an important role in stimulating local economic growth, especially when combined with access to markets and an educated workforce, and are associated with some of the fastest growing communities in the West (Rasker 2006 and Rasker et al. 2009).
- Wilderness designation enhances nearby private property value (Phillips 2004).
- Wilderness and conservation lands are associated with rapid population, income, and employment growth relative to non-wilderness counties (Lorah and Southwick 2003; Lewis, Hunt and Plantinga 2002).
- There is no evidence of job losses associated with wilderness and no evidence that counties more dependent on logging, mining, or oil and gas suffered job losses as a result of wilderness designation in 250 non-urban counties in the Rocky Mountains (Duffy-Deno 1998).

### **Recommendations:**

Based on what we read in the Proposed Action, it seems clear that the Chapter 70 wilderness evaluation is not yet complete. When analyzing the impacts of recommending areas for wilderness, we request that the agency include in its analysis the following socio-economic considerations:

- The economic benefits of protected lands, including wilderness,
- The projected increase in wilderness visitation rates, and
- The increased participation in outdoor, nature-based recreation.

### **C. Alternatives to Consider in the EIS**

The “heart” of an EIS is its exploration of alternatives to the proposed action: the agency must “[r]igorously explore and objectively evaluate all reasonable alternatives.”<sup>35</sup> The alternatives analysis allows agencies to “sharply defin[e] the issues and provid[e] a clear basis for choice among options by the decisionmaker and the public.”<sup>36</sup> Alternatives are important because:

Ultimately, of course, it is not better documents but better decisions that count. *NEPA’s purpose is not to generate paperwork – even excellent paperwork – but to foster excellent action.* The NEPA process is intended to help public officials make decisions that are based on [an] understanding of environmental consequences, and take actions that protect, restore, and enhance the environment.<sup>37</sup>

The agency is not required to consider every conceivable alternative to a project. Rather it must consider a range of reasonable alternatives that will foster informed decisionmaking and public participation. Reasonable alternatives are those that are viable, feasible, meet the stated goals of the project, and are distinguishable from the alternatives already considered.<sup>38</sup> “[A]n agency must

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<sup>35</sup> 40 C.F.R. § 1502.14

<sup>36</sup> *Id.*

<sup>37</sup> 40 C.F.R. § 1500.1(c))(emphasis added); *see also* 40 C.F.R. § 1500.2(e)

<sup>38</sup> *See New Mexico ex rel. Richardson v. BLM*, 565 F.3d 683, 708-10 (10th Cir. 2009); *Idaho Conservation League v. Mumma*, 956 F.2d 1508, 1519-20 (9th Cir. 1992)

look at every reasonable alternative, with the range dictated by the nature and scope of the proposed action, and sufficient to permit a reasoned choice.”<sup>39</sup>

In the context of administrative designations, a range of reasonable alternatives would include alternatives that to varying degrees emphasize conservation in the form of wilderness recommendations, wild and scenic river eligibility findings, roadless and wildlife protection, and other conservation management. The Forest Service Handbook guides managers to “[d]evelop other alternatives fully and impartially...[and] ensure that the range of alternatives does not prematurely foreclose options that might protect, restore, and enhance the environment.”<sup>40</sup>

In other parts of this letter, we provide numerous recommendations on elements – including standards, guidelines, and other forest plan components – that should be included in alternatives. The purpose of this section of the letter is to provide information on specific elements related to designated areas. We request that the agency please contact us if it is considering eliminating a recommendation proposed in our letter from detailed study in an alternative in order to give us a chance to clarify any confusion or misunderstandings that may be cause for elimination.<sup>41</sup>

## **1. Lands Found To Have Wilderness Characteristics in the Wilderness Evaluation Process**

Given that the Forest Service must analyze a reasonable range of alternatives, we request that the Flathead NF recommend for wilderness all lands found to have wilderness characteristics through the wilderness evaluation process at FSH 1909.12, § 72. Recommending all qualifying lands for wilderness designation in at least one alternative is reasonable, since the action would fit squarely within the purpose of the plan revision and is viable and feasible under current laws and regulations. The Proposed Action appears to eliminate many acres with wilderness characteristics from further analysis. It would be premature and foolhardy to head down this path without the further analysis we are requesting herein.

### **Recommendation:**

We request that the Flathead NF analyze at least one alternative that recommends for wilderness all lands found to have wilderness characteristics through the wilderness evaluation (FSH 1909.12, § 72).

## **2. Management of Recommended Wilderness Areas**

The planning rule requires that the plan include plan components, including standards and guidelines, for the “management of areas recommended for wilderness designation to protect and maintain the ecological and social characteristics that provide the basis for their suitability for wilderness designation.”<sup>42</sup> The Forest Service, therefore, has the discretion to allow mechanized and motorized use in recommended wilderness so long as such use does not diminish the ecological

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<sup>39</sup> *Idaho Conservation League*, 956 F.2d at 1520 (internal quotations and citations omitted).

<sup>40</sup> FSH 1909.15 § 14.2

<sup>41</sup> See 40 C.F.R. § 1502.14(a) (agency must provide rationale for eliminating alternatives from detailed study).

<sup>42</sup> 36 C.F.R. § 219.10(b)(1)(iv). The FSH provides detail to this provision stating that “[t]he plan may include one or more plan components for a recommended wilderness area that:

1. Enhance the ecological and social characteristics that provide the basis for wilderness designations;
2. Continue existing uses, only if such uses do not prevent the protection and maintenance of the social and ecological characteristics that provide the basis for wilderness designation;
3. Alter existing uses, subject to valid existing rights; or
4. Eliminate existing uses, except those uses subject to valid existing rights.” FSH 1909.12, § 74.1.

and social characteristics that provide the basis for their suitability for wilderness designation. However, it is our experience that allowing incompatible uses in recommended wilderness areas can impair wilderness character. Incompatible uses can also lead to a reduction in wilderness potential because the use becomes accepted and expected in these areas, which can lead to a lower likelihood of designation.

In a recent report (attached), the Idaho Conservation League (ICL) examined the effects of allowing incompatible modes of access in recommended wilderness areas and concluded that allowing incompatible uses in certain circumstances can lead to a diminishment in wilderness character and wilderness potential.<sup>43</sup> The Forest Service's own observations affirm the conclusions found in the ICL report. Staff on the Clearwater National Forest recently assessed the wilderness character of areas recommended for wilderness in 1978. Their analysis found that the wilderness character of half of the areas was degraded in the intervening years, simply by the continued and expanded use of motorized and mechanized vehicles.<sup>44</sup> Region 1 of the Forest Service affirmed this reality in a regional document in which it stated: "In some areas, uses have changed or certain types of use have increased significantly, possibly degrading wilderness characteristics."<sup>45</sup>

In order to avoid a situation where wilderness character is degraded and wilderness potential is reduced for recommended wilderness areas, we request that the Forest Service disallow mechanized and motorized use in these areas. Only by developing plan components that manage recommend wilderness consistent with designated wilderness will the Flathead NF satisfy the rule's direction to maintain the ecological and social characteristics that provide the basis for the area's suitability for wilderness designation. Additionally, we request that the Flathead NF categorize our proposed recommended wilderness areas in the primitive or semi-primitive non-motorized Recreation Opportunity Spectrum (ROS) classifications in order to ensure the management direction within the forest plan is consistent across management schemes.

We also request that the Forest Service manage fire in recommended wilderness the same as how it manages fire in designated wilderness, both in terms of pre-suppression actions and its response to active fires. Federal fire policy and Forest Service wilderness policy recognize the important role that fire plays in ecosystems. Fire, behaving within its historical range of variation, has been shown to lower fuel loads, diversify and renew vegetation structure, create wildlife habitat, renew soil nutrients, and limit the growth of subsequent fires. Managing fires for their benefits has also been shown to lower exposure of firefighters to risk and to reduce per-acre costs of fire management relative to suppression. It is federal policy to use fire "to protect, maintain, and enhance resources and, as nearly as possible, be allowed to function in its natural ecological role."<sup>46</sup> Often, wilderness

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<sup>43</sup> Idaho Conservation League. *In Need of Protection: How Off-Road Vehicles and Snowmobiles Are Threatening the Forest Service's Recommended Wilderness Areas*. 2011. (The authors document the on-the-ground conditions resulting from the application of two different approaches to managing recommended wilderness: Region 1, which includes the national forests in northern Idaho, generally disallows motorized travel in areas recommended for wilderness, and Region 4, which includes the national forests in southern Idaho, generally allows motorized travel. The report concludes that wilderness character is being degraded considerably more in Region 4 forests more than in Region 1 forests from allowed motorized use.)

<sup>44</sup> Clearwater National Forest, Travel Planning Draft Environmental Impact Statement. pp. 3-81 to 384 ("As motorized technology continues to be developed levels of access into remote, back-country locations will rise and with this increased use will come additional noise and disturbance which adversely affects attributes of wilderness character. . . . The increase in vehicle capability, numbers, and local use, puts areas of recommended wilderness at far greater risk of degradation and loss of wilderness character than they were when the Forest Plan was written. In addition, other areas recommended for wilderness have not received serious consideration for designation once motorized use has become established.")

<sup>45</sup> Consistency in Land and Resource Management Plans, USDA FS Region One, 8/25/2008

<sup>46</sup> Federal Wildland Fire Management Policy. 1995. Available online at [www.wilderness.net/NWPS/policyfire](http://www.wilderness.net/NWPS/policyfire).

and recommended wilderness, because of its remoteness from resources at risk, is the best place to achieve this goal.

**Recommendations:**

In order to be compliant with the 2012 planning rule in terms of managing areas recommended for wilderness, all action alternatives must include plan components that “protect and maintain the ecological and social characteristics that provide the basis for their suitability for wilderness designation.”<sup>47</sup> In order to comply with this direction, we request that the Flathead NF establish a standard that would manage areas recommended for wilderness exclusively for non-motorized and non-mechanized uses. We request that the Flathead NF categorize recommended wilderness areas in the primitive or semi-primitive non-motorized ROS classifications. Lastly, we request that the Flathead NF manage fire in recommended wilderness identical to how it manages fire in designated wilderness.

### **3. Inventoried Wilderness Areas that Are Not Recommended for Wilderness**

As a part of the Chapter 70 process, the agency will inventory and evaluate lands for consideration in the NWPS. Some lands included in the final wilderness inventory will not be recommended for wilderness. These inventoried-but-not-recommended lands will be a mix of IRA and non-IRA lands; they constitute a set of lands within the Flathead NF that are categorized as roadless and are largely undeveloped.

We request that the Forest Service maintain the roadless character of Chapter 70 inventoried areas that are not recommended for wilderness in multiple alternatives including the preferred alternative. First and foremost, this is a reasonable request since it preserves the status quo of current roadless lands, fits within the purpose of the plan revision, and is feasible and viable under current regulation and policy.<sup>48</sup> Moreover, maintaining and enhancing the roadless character of these lands will contribute to the achievement of the substantive provisions in sections 219.8, 219.9, and 219.10 of the planning rule. As we described above, roadless lands are ecologically important and play a critical role in ensuring the persistence of species, providing connectivity, and ensuring watershed functionality, which is only more important in light of climate change.

**Recommendations:**

We request that the Flathead NF maintain and restore the roadless values and wilderness character of Chapter 70 inventoried areas that are not recommended for wilderness in multiple alternatives including the preferred alternative. We request that the agency adopt the following plan components for these areas:

- A desired condition statement about the contribution these areas provide to achieve landscape level connectivity, provide for wildlife movement and secure habitat, and preserve opportunities to experience some qualities of wilderness character. We propose the following statement: *Large remote areas with little human disturbance such as those found in these inventoried areas are retained and contribute to habitats for species with large home ranges. These inventoried areas contribute to a larger connected network of conservation lands comprised of wilderness and recommended wilderness. Habitat conditions*

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<sup>47</sup> 36 C.F.R. § 219.10(b)(1)

<sup>48</sup> Forest Service policy gives the agency discretion to decide the fate of non-recommended wilderness inventory lands. One possible management scenario is the maintenance and enhancement of roadless character. (“Inclusion in the inventory is not a designation that conveys or requires a particular kind of management.” FSH 1909.12, § 70.62(a))

*within these areas contribute to wildlife movement within and across the Forest. These areas also provide foraging, security, denning, and nesting habitat for wildlife. These areas preserve opportunities to experience wilderness character, wildlife connectivity, and the ecological integrity of the Forest's sky islands. Integrated restoration will be implemented to remove unneeded improvements that degrade these qualities. Mechanized use and motorized traffic on designated routes as shown on the MVUM will be allowed.*

- Objectives that say:
  - *Unneeded improvements that degrade roadless values, wilderness character, including supplemental values as identified and documented in the wilderness evaluation process, and/or ecological function will be restored;*
  - *Roadless values and wilderness character, including supplemental values as identified and documented in the wilderness evaluation process, will be maintained;*
  - *Mechanized and motorized use on designated routes as displayed on the Motor Vehicle Use Map will be allowed.*
- A guideline that says: *no new road construction is allowed.*

#### **4. Management Areas**

The Flathead NF should establish a management area that includes all the lands inventoried in the Chapter 70 wilderness process that will not be recommended for wilderness. Above we request that the Flathead NF analyze multiple alternatives that would provide management direction for lands inventoried in the Chapter 70 wilderness process that will not be recommended for wilderness. We reiterate that request here and suggest that the agency create a management area to manage these lands to protect their roadless and wilderness values.

#### **Recommendation:**

We request that the Flathead NF establish a management area to provide management direction for lands identified in the final wilderness inventory that are not recommended for wilderness.

## **VI. Sustainable Recreation Planning and Management**

### **A. Forest Service Regulatory and Policy Direction for Recreation Planning**

#### **1. Forest Service Planning Rule and Policy Directives**

The 2012 planning rule establishes ecological sustainability as the overarching goal of planning, and directs that land management plans should provide people and communities ecosystem services and multiple uses that provide a range of benefits – including recreational, educational, and spiritual -- for the present and into the future.<sup>49</sup> To achieve this, the rule requires the Forest Service to provide for “sustainable recreation” and emphasizes the importance of connecting people with nature. As set forth in the rule, sustainable recreation is “the set of recreation settings and opportunities on the National Forest System that is ecologically, economically, and socially sustainable for present and future generations.”<sup>50</sup>

In revising a land management plan, the Forest Service must develop plan components, including standard and guidelines, to provide for:

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<sup>49</sup> 36 C.F.R. § 219.1(c)

<sup>50</sup> 36 C.F.R. § 219.19

- Sustainable recreation, including sustainable settings, opportunities, and access; and scenic character.<sup>51</sup>
- The plan area's contribution to social and economic sustainability, taking into account sustainable recreation and opportunities to connect people with nature.<sup>52</sup>
- Integrated resource management to provide for ecosystem services and multiple uses, considering
  - Appropriate placement of infrastructure, such as recreational facilities,
  - Opportunities to coordinate with neighboring landowners to link open spaces and take into account joint management objectives where feasible and appropriate, and
  - Opportunities to connect people to nature.<sup>53</sup>

In regard to the interface of recreation and protecting environmental resources, the planning rule requires plan components, including standards and guidelines, to ensure achievement of the substantive provisions related to ecological integrity, sustainability, and diversity at 36 C.F.R. §§ 219.8(a) and 219.9. The Forest Service, therefore, needs to develop plan components guiding the management of recreation settings, opportunities, infrastructure, and access that do not impede the achievement of the substantive provisions. The agency must also determine the suitability of lands for motorized use, and should consider developing suitability determinations for various recreational uses, access, infrastructure and facilities.<sup>54</sup> Lastly, the Forest Service must develop plan components that ensure recreational facilities, access, and use complies with the Forest Service's best management practices for water quality.<sup>55</sup>

The planning directives add detail to the planning rule's provisions. Drawing on the unit's distinctive role and contributions, the directives urge the forest to be proactive in developing a "coherent system of sustainable and socially compatible recreation opportunities."<sup>56</sup> In doing so, the Forest Service should:

- Use the ROS to define recreation settings, and then establish compatible activities (opportunities) within those settings.<sup>57</sup> The Forest Service can create ROS sub-classes to reflect specific situations on a forest or reflect seasonal variations, as well as create different ROS settings for winter.<sup>58</sup>
- Map *desired* ROS classes based on management areas, geographic areas, designated areas, and/or independent overlay mapping, noting that *desired* ROS settings may be different from *existing* ROS settings.<sup>59</sup>
- Complete suitability determinations consistent with the *desired* ROS class.<sup>60</sup> At a minimum, the forest should determine suitability for motorized recreation, including over the snow vehicles; however, the forest can also determine suitability – or non-suitability – for various types of recreational activities (e.g., mountain biking, horseback riding, outfitting and

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<sup>51</sup> 36 C.F.R. § 219.10(b)(1)(i)

<sup>52</sup> 36 C.F.R. §§ 219.8(b)(2) & (6)

<sup>53</sup> 36 C.F.R. §§ 219.10(a)(3), (4) & (10)

<sup>54</sup> FSH 1909.12, § 23.239(a)(2)(d), (e), & (f)

<sup>55</sup> 36 C.F.R. § 219.8(a)(4)

<sup>56</sup> FSH 1909.12, § 23.23a(1)(d)(2)

<sup>57</sup> FSH 1909.12, § 23.23a(1)(d)(1)

<sup>58</sup> *Ibid*

<sup>59</sup> FSH 1909.12, § 23.23a(2)(a)

<sup>60</sup> FSH 1909.12, § 23.23a(2)(d)



guiding) and infrastructure within each *desired* ROS class.<sup>61</sup>

The plan must include components, including standards and guidelines, to drive the transformation from existing to desired ROS settings.<sup>62</sup> It can also include components to direct management in specific 1) ROS classes, 2) management areas, 3) geographic areas, 4) designated areas, or 5) other places (e.g., landscapes with unique character, high conflict potential, cultural values, water features, scenic quality, important recreation destinations).<sup>63</sup>

In regard to the planning rule's direction to take into account opportunities to connect people with nature, the Forest Service can evaluate existing information including the unit's distinctive role and contribution, and develop strategies<sup>64</sup> and supporting plan components that better connect people, with an emphasis on youth and underserved populations, with nature. In addition, the Forest Service can identify environmental study areas or visitor centers specifically to provide educational opportunities to schools and the public.<sup>65</sup>

## **2. Travel Management Rule and ORV Executive Orders**

Subparts B and C of the travel management rule at 36 C.F.R. 212 require that motorized travel occur only on a designated system of routes and areas in the summer and winter, respectively. It also establishes two exceptions to the ban on cross-country driving in the summer time; motorized vehicles can travel a defined limited distance off specific route segments for the purposes of dispersed camping and game retrieval when specified on the map.<sup>66</sup> Forest Service policy instructs forests to use the exceptions sparingly.<sup>67</sup>

Executive Orders 11989 and 11644 establish that off-road vehicle trails and areas must be located to minimize damage to forest resources and existing and potential recreation uses.<sup>68</sup> The Executive Orders establish specific criteria for minimization, which are echoed in the travel management rule. Specifically, the Executive Orders require that when designating areas or trails available for off-road vehicle use, agencies must locate them to:

- (1) minimize damage to soil, watershed, vegetation, or other resources of the public lands;
- (2) minimize harassment of wildlife or significant disruption of wildlife habitats; and
- (3) minimize conflicts between off-road vehicle use and other existing or proposed recreational

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<sup>61</sup> FSH 1909.12, § 23.23a(2)(e) & (f)

<sup>62</sup> FSH 1909.12, § 23.23a(2)(g) & (c)

<sup>63</sup> FSH 1909.12, § 23.23a(2)(h)

<sup>64</sup> Strategies, for instance, could address recreational opportunities, interpretation, access, safety, stewardship, and partnerships.

<sup>65</sup> FSH 1909.12, § 23.23(a)(2)

<sup>66</sup> 36 C.F.R. § 212.51(b). ("In designating routes, the responsible official may include in the designation the limited use of motor vehicles within a specified distance of certain forest roads or trails where motor vehicle use is allowed, and if appropriate within specified time periods, solely for the purposes of dispersed camping or retrieval of a downed big game animal by an individual who has legally taken that animal.")

<sup>67</sup> FSM 7703.11(4). This issue has been addressed in a recent appeal decision as well: "[A] broad designation allowing dispersed camping along all or most designated routes is not consistent with long-term objectives for travel management. Direction from the Chief of the Forest Service indicates that the allowance of dispersed camping by general designation along roads and trails should be used sparingly." (Reviewing Officer Recommendation, Sawtooth National Forest, Travel Plan Revision, Appeals #08-04-14-0035-A215, #08-04-14-0038-A215, and #08-04-14-0039-A215 at 17; *see also* accompanying Appeal Decision at 1, adopting recommendation and directing Sawtooth National Forest to modify decision ("Include designations for motor vehicle use for dispersed camping on the initial motor vehicle use map only to the extent that they reflect conditions where motor vehicle use for dispersed camping is practicable without causing unacceptable resource damage.")).

<sup>68</sup> Exec. Order No. 11,644, 37 Fed. Reg. 2877 (Feb. 8, 1972), *as amended by* Exec. Order No. 11,989, 42 Fed. Reg. 26,959 (May 24, 1977).

uses of the same or neighboring public lands.<sup>69</sup>

The Executive Orders also include protective mechanisms designed to ensure that off-road vehicle designations are not impairing the protection of public lands. Specifically, they obligate the Forest Service to: 1) periodically monitor the effects of off-road vehicle use, and based on the data amend or rescind the off-road vehicle designations;<sup>70</sup> and 2) immediately close areas and trails to off-road vehicle use if the Forest Service determines that the use of off-road vehicles “will cause or is causing considerable adverse effects on the soil, vegetation, wildlife, wildlife habitat or cultural or historic resources of particular areas or trails of the public lands ... until such time as [the agency] determines that such adverse effects have been eliminated and that measures have been implemented to prevent future recurrence.”<sup>71</sup>

Although travel management for the most part is decided in conforming project-level plans and decisions, land management plans should reinforce the travel management rule’s provisions and requirements in standards, and provide the necessary detail on how the Forest Service will carry out and comply with the Executive Order provisions. Additionally, to the degree land management plans allocate areas and routes for motorized use, these allocations are subject to the minimization criteria established in the Executive Orders.

## **B. Factors to Address in Alternatives and Plan**

### **1. Sustainable Settings**

The planning rule requires the plan to include “plan components, including standard and guidelines, to provide for...[s]ustainable recreation, including sustainable settings...”<sup>72</sup> The planning directives are explicit that the Forest Service should describe its desired ROS settings, identify the gap that exists between the existing and the desired settings, and develop plan components necessary to close the gap in a specific amount of time. The settings should reinforce and be compatible with the recreation niche, as well as the plan area’s broader distinctive role and contribution within the broader landscape. They can be based on a variety of factors such as geographic areas, management areas, resource constraints, scenery, access, and physiography. The Forest Service has the latitude to develop ROS sub-classes to reflect seasonal variations or specific conditions or resources on the forest, as well as develop separate winter ROS settings if the summertime ROS classes do not apply well to the winter situation.

We recommend the following related to the identification, spatial allocation, and management of ROS settings. First and foremost, the Forest Service must include a standard that makes desired ROS settings enforceable (e.g., the Forest Service will take no action incompatible with the desired ROS setting). This is the only way to ensure compliance with the rule’s requirement to provide for sustainable settings. In the past, it was not uncommon for the Forest Service to implement projects that modified the ROS settings, usually resulting in an erosion of non-motorized and primitive settings. In addition, where existing ROS settings do not align with desired ROS settings, the Forest Service must set a timeframe for closing the gap, and identify prioritized tasks, in the form of standards and guidelines, for driving the transformation. Without this, there is no guarantee that the desired ROS settings will be achieved over the life of the plan.

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<sup>69</sup> *Id.* § 3(a).

<sup>70</sup> *Id.* § 8.

<sup>71</sup> *Id.* § 9.

<sup>72</sup> 36 C.F.R. § 219.10(b)(1)(i)

Second, we recommend that the Flathead NF as a general matter develop sub-classes if necessary to ensure appropriate management and sustainability of specific settings. To that end, we recommend the establishment of a sub-class called Front-Country Portal where non-motorized visitation by community members, groups, and schools, environmental learning, and connection to public lands is emphasized.

Third, the spatial allocation of ROS settings should be compatible with – and even reinforce other management prescriptions. This means that the Forest Service should integrate resource and recreation management allocations and prescriptions to facilitate achievement of the substantive ecological and sustainability provisions in 219.8 through 219.10 and support a range of multiple uses.<sup>73</sup> Hence, the Forest Service should seek to assign ROS settings to facilitate the achievement of the substantive ecological integrity and diversity provisions. For instance, areas that serve as important habitat for species of concern or priority watersheds could be assigned a non-motorized ROS class where enjoyment of natural scenery and processes is emphasized.

The identification and allocation of desired recreation settings should not be done after other resource allocations are made. This happened commonly in the past and resulted in the subordination of recreation settings to other resource allocations.<sup>74</sup> For example, if the Forest Service determines that the desired ROS class for a particular area is semi-primitive non-motorized and also determines a need to manipulate vegetation, it can establish a management prescription that enables vegetation management without motor vehicle access. In addition or alternatively, the Forest Service could establish a management prescription that enables motor-vehicle-assisted vegetation treatments within a specified timeframe, after which the desired ROS class of backcountry non-motorized would apply (aka “a one-time restoration” management prescription).

Fourth, the Forest Service, as much as possible, should spatially arrange ROS classes and sub-classes to align with geographic and topographic features. For instance, it makes sense to assign a subwatershed a ROS class so that the setting, the recreational experience it provides, and the management presence it requires is consistent ridge to ridge. This enhances the sustainability of the setting, and facilitates management and public understanding and compliance. In addition, to the degree possible and it makes sense, coordinate the spatial allocation of settings with those on adjacent lands.<sup>75</sup>

Fifth, the allocation of recreation settings and opportunities should take into account existing and projected recreation uses and desires. The two most popular recreational activities on the Flathead NF after downhill skiing and hunting by far are hiking/walking and viewing natural features, with 17% and 6% of visitors citing these as their main activities, respectively.<sup>76</sup> This compares to activities such as off-highway vehicle riding that are incompatible with wilderness conservation, in which about 1% of the Flathead NF visitors participate as their main activity.<sup>77</sup> See Table 1, below.

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<sup>73</sup> 36 C.F.R. § 219.1(c)

<sup>74</sup> In previous rounds of forest planning, ROS settings were generally byproducts of resource allocations. For example, zones where vegetative management or commercial logging were allowed were by default assigned motorized ROS settings.

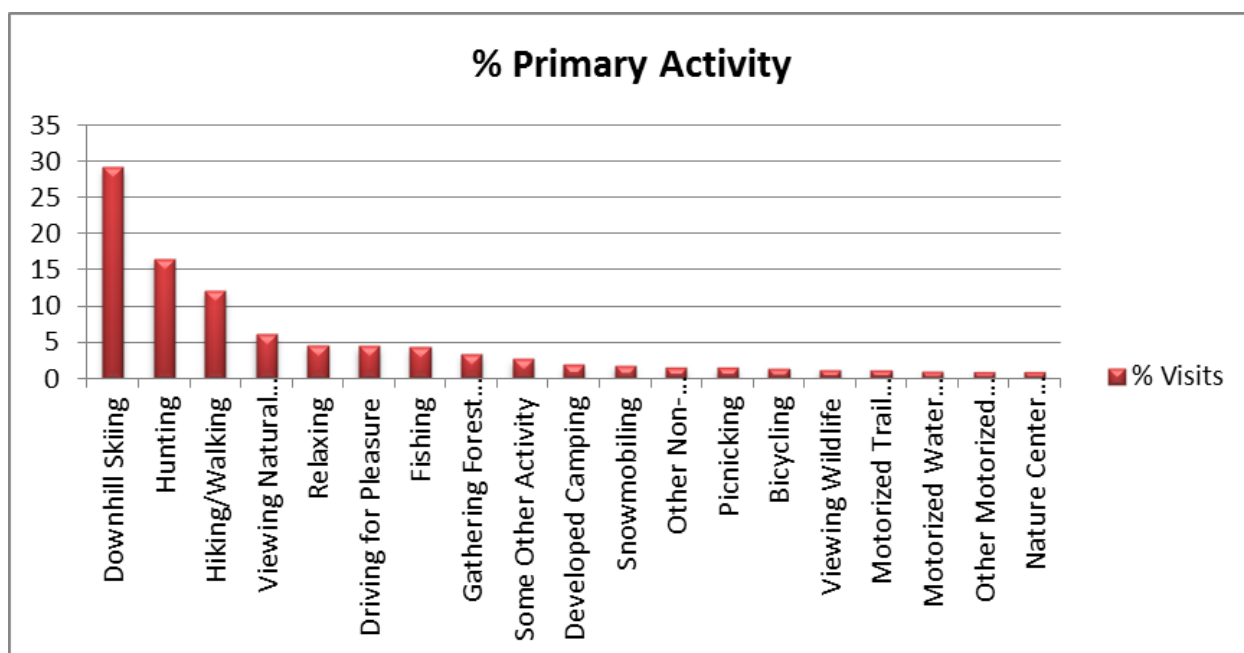
<sup>75</sup> See 36 C.F.R. § 219.10(a)(4) (“provide for ecosystem services and multiple uses, considering ...[o]pportunities to coordinate with neighboring landowners to link open spaces and take into account joint management objectives where feasible and appropriate”)

<sup>76</sup> Flathead National Forest Assessment, Part 2, April 2014, at 169.

<sup>77</sup> *Id.*

On a broader scale, recreational surveys show that Americans are participating in increasing numbers in recreational pursuits that natural areas such as non-motorized backcountry and wilderness provide. Both the total number of Americans and the total number of days annually in which Americans participate in nature-based recreation have grown since 1994. In particular, viewing, photographing, and studying nature (e.g., wildlife and birds), have grown strongly (see Table 1, below); primitive camping and backpacking days increased 12% and 24%, respectively, between 2000 and 2008.<sup>78</sup>

**Table 1. Percent visits by primary activity in 2010 on the Flathead NF. Flathead National Forest Assessment, Part 2, at 169.**



## 2. Suitability

The Forest Service is required to complete suitability determinations for motorized recreation within each desired ROS class.<sup>79</sup> Suitability determinations should be based on a variety of factors including, but not limited to: legal status, access, soils, vegetation, wildlife habitat needs, sensitive habitats, water features, and scenery management. In previous plans, the Forest Service has based its suitability determinations solely on the legality of allowing the particular use (e.g., motorized recreation is not suitable in Wilderness). In addition, the Forest Service should consider completing suitability or non-suitability determinations for various types of recreational activities

<sup>78</sup> Cordell, H. K., Beltz, C. J., & Green, G. T. 2008a. Nature-based Outdoor Recreation Trends and Wilderness. *International Journal of Wilderness*, 14(2), 7-9, 13. Available online at: [http://www.srs.fs.fed.us/pubs/ja/ja\\_cordell022.pdf](http://www.srs.fs.fed.us/pubs/ja/ja_cordell022.pdf).

<sup>79</sup> FSH 1909.12, § 23.23a(2)(d)

(e.g., mountain biking, horseback riding, outfitting and guiding) and infrastructure.<sup>80</sup>

### 3. Sustainable Opportunities

The planning rule requires the plan to include “plan components, including standard and guidelines, to provide for...[s]ustainable recreation, including sustainable....opportunities, and access...”<sup>81</sup> Sustainable opportunities are those that will maintain ecological integrity, as well as support social and economic benefits for the present and future generations. The plan must have plan components, including standards and guidelines, that ensure that opportunities are compatible with (and ideally enhance) the desired settings and recreational niche. In addition, to the extent that the provision or sustainable opportunities rely on infrastructure such as roads, trails, bathrooms, trailheads, parking lots, and picnic areas, the plan must contain standards and guidelines that ensures infrastructure is sited appropriately (e.g., maintain ecological integrity and viewsheds, and enable consistent flow of benefits into the future), compatible with the desired setting, and capable of being adequately maintained with predicted capacities, including implementing best management practices for water quality. Practically, this means that recreation infrastructure should be the minimum necessary to maintain and enhance the desired settings and recreation objectives while not compromising ecological integrity.

#### a. Sustainable off-road vehicle designations and use

In providing direction for the siting and management of off-road vehicle use (summer and winter), the plan components must ensure compliance with Executive Orders 11989 and 11644.<sup>82</sup> Specifically, the plan must include *standards* that establish:

- The Forest Service will apply the Executive Order minimization criteria to projects that propose to create or modify off-road vehicle area or trail designations. Application of the criteria requires the Forest Service to demonstrate how each area and trail as well as the aggregate system minimizes – not just considers – impacts to forest resources and other existing and projected recreation uses. The aggregate system includes cross-country driving zones for dispersed camping or game retrieval enabled under the travel management rule.
- The Forest Service will create and carry out a strategy for monitoring the impacts of off-road vehicle use on Forest Service-administered lands, and make the monitoring results available to the public including recommendations for amendments or rescissions of off-road vehicle designations. The strategy will include indicators that trigger action under Section 9 of the Executive Order.<sup>83</sup> The strategy, if relevant, should also address monitoring, trigger points, and actions related to the impacts that result from cross-country driving for dispersed camping or game retrieval enabled under the travel management rule.

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<sup>80</sup> FSH 1909.12, § 23.23a(2)(e) & (f)

<sup>81</sup> 36 C.F.R. § 219.10(b)(1)(i)

<sup>82</sup> Exec. Order No. 11,644, 37 Fed. Reg. 2877 (Feb. 8, 1972), *as amended by* Exec. Order No. 11,989, 42 Fed. Reg. 26,959 (May 24, 1977).

<sup>83</sup> Section 9 requires that when the agency determines that the use of off-road vehicles will cause or is causing considerable adverse effects on the soil, vegetation, wildlife, wildlife habitat or cultural or historic resources of particular areas or trails of the public lands, it must immediately close such areas or trails to the type of off-road vehicle causing such effects, until such time as he determines that such adverse effects have been eliminated and that measures have been implemented to prevent future recurrence.

To the extent that motorized recreation occurs on system roads, plan components must ensure that such access and use is sustainable. To that end, it makes sense to extend the minimization and monitoring concepts in the Executive Orders to motorized recreation occurring on roads. Specifically, standards and guidelines should ensure that: all motorized designations minimize impacts;<sup>84</sup> are periodically monitored, reviewed, and modified as needed; and are modified immediately when considerable adverse damage is occurring. These plan components are necessary to ensure that recreation is sustainable regardless whether it occurs on a trail, area, or road.

Lastly, the plan should have standards and guidelines that guide how, when, and if exceptions to the cross-country driving prohibitions for dispersed camping and game retrieval will be allowed. The direction should be compliant with the travel management rule and applicable policy directives.

#### b. Recreation events

The plan must include standards and guidelines for the management and allowance of recreation events in order to ensure sustainability and ecological integrity, as required by the planning rule. Recreation events, executed sustainably, promote connections to and provide opportunities to educate people about public lands, as well as stimulate local economies. However, sited or executed badly, events can result in significant damage to public lands. Many forests have an ad hoc approach to managing events in that they respond to event applications when they receive them, but do not have an overarching guiding framework. This can lead to frustration and unneeded expense by both the event organizers and the agency when applications propose inappropriate or poorly designed events (e.g., may result in unnecessary resource damage). It makes a lot more sense for the Forest Service to include a management framework for recreation events that will enable environmentally appropriate events. The framework should address elements such as siting, seasonality, timing, size, event types, management requirements, potential user conflict, and public engagement, and should adequately guide forest managers and event organizers alike.

#### c. New uses

The plan should include components that guide how the Forest Service will address new types of recreation when they arise. The general management approach in the past has been to allow new types of recreational activities, regardless of whether they were explicitly planned for, until serious resource or social issues emerged forcing management action. The rise in the popularity of mountain biking on national forests is a good example of this phenomenon. This management approach was expedient since it is difficult in a forest plan to predict and plan for possible new recreational pursuits as well as to prohibit all but existing types of uses. However, it also results in resource damage and user conflict. We recommend that the plan include standards and guidelines that require a plan amendment in response to the emergence of new recreational uses beyond a threshold level (for example, 2% of visits), to ensure that the activity is ecologically and socially sustainable and does not impair ecological integrity. This will help ensure that appropriate allocation and management actions are instituted before unnecessary damage and conflict occur.

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<sup>84</sup> This reinforces the provision at 36 C.F.R. § 212.5(b)(1) that requires the Forest Service to identify a minimum road system (“forests must first “identify the minimum road system needed for safe and efficient travel and for administration, utilization, and protection of National Forest System lands.”) See Section VI of these comments for a more in-depth discussion of this requirement.

### **C. Winter Motorized Recreation**

We understand that the Flathead NF intends to carry Amendment 24 forward into the new forest plan with limited modifications. While this may be acceptable to a degree, we have some concerns about this approach that must be addressed before Amendment 24 is incorporated into the new plan. Forest plans are programmatic in nature and do not meet National Environmental Policy Act (NEPA) obligations to take a hard look at the site-specific impacts of motorized route designations. Travel planning is a site-specific process through which specific trails and areas are designated for motorized use. Forest planning is a much broader process and it may not entirely meet the goals of travel planning unless certain criteria are met. If the Flathead NF wishes to incorporate winter travel planning into the forest plan the Forest will need to take a hard look at route and area designations prior to approving them for over-snow vehicle (OSV) use.

In addition, summer and winter travel planning are considerably different. Because cross-country travel is generally prohibited for wheeled vehicles and open areas are very small and confined it is understood that the areas deemed suitable for motorized use in the Forest Plan will be further refined and designations of specific routes and areas within these larger areas will be determined during travel planning. With OSVs, however, cross-country travel is more common and open areas are usually quite a bit larger. We are concerned that the Flathead NF will determine areas where OSV use is suitable during Forest Plan revision but then fail to go further and designate specific routes and areas within these larger suitable areas.

In late January 2015, the Forest Service's Washington Office released a new Over-Snow Vehicle (OSV) Rule<sup>85</sup> providing a framework for winter travel planning efforts on all National Forest lands. The OSV Rule requires National Forests with adequate snowfall to designate and display on an "over-snow vehicle use map" a system of routes and areas where OSV use is permitted based on resource protection needs and other recreational uses. OSV use outside the designated system is prohibited.

Amendment 24 only designates specific routes and areas for OSVs in the Whitefish Range. Beyond the Whitefish Range the Flathead NF must still designate areas and trails open to OSV use in a planning process. Those designations can be made through a land management plan revision or in separate project-level decisions. To the extent the Forest intends to designate OSV areas or trails through the plan revision process, these comments highlight pertinent requirements of the new rule, including compliance with the minimization criteria found in Executive Orders 11644 and 11989.

#### **1. The Forest Service must apply the minimization criteria to actually minimize impacts when designating each area and trail open to OSV use.**

In response to the growing use of dirt bikes, snowmobiles, all-terrain vehicles, and other off-road vehicles (ORVs) and the corresponding environmental damage, social conflicts, and public safety concerns, Presidents Nixon and Carter issued Executive Orders 11644 and 11989 in 1972 and 1977, respectively, requiring federal land management agencies to plan for ORV use based on protecting resources and other uses.<sup>86</sup> When designating areas or trails available for ORV use, agencies must locate them to:

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<sup>85</sup> 80 Fed. Reg. 4500 (Jan. 28, 2015), 36 C.F.R. part 212, subpart C.

<sup>86</sup> Exec. Order No. 11644, 37 Fed. Reg. 2877 (Feb. 8, 1972), as amended by Exec. Order No. 11989, 42 Fed. Reg. 26959 (May 24, 1977).

- “1) minimize damage to soil, watershed, vegetation, or other resources of the public lands;
- 2) minimize harassment of wildlife or significant disruption of wildlife habitats; and
- 3) minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands.”<sup>87</sup>

The Forest Service codified these “minimization criteria” in subparts B and C of its travel management regulations.<sup>88</sup> The agency has struggled, however, to properly apply the criteria in its travel management decisions, leading to a suite of federal court cases invalidating Forest Service travel management plans.<sup>89</sup> Collectively, these cases confirm the Forest Service’s substantive legal obligation to meaningfully apply and implement – not just identify or consider – the minimization criteria when designating each area and trail, and to show in the administrative record how it did so. To the extent the Flathead NF purposes to designate areas as open to OSV use in the forest planning process, we request that the Forest show how the minimization criteria were applied in the analysis, development, and comparison of Alternatives. Similarly, to meet legal requirements, the Forest should show how its preferred Alternative does the best job at minimizing impacts to soils, watersheds, wildlife, habitat and conflicts between recreational uses.

It has been over four decades since President Nixon first obligated the Forest Service to minimize impacts associated with ORV use, including snowmobiles. Yet the agency has systematically failed to do so. In the meantime, irresponsible and mismanaged ORV and OSV use continues to degrade soil, air, and water quality, threaten imperiled wildlife species, and diminish the experience of the majority of public lands visitors who enjoy the natural landscape through quiet, non-motorized forms of recreation.

## 2. Proper application of the minimization criteria

The Executive Orders require the Forest Service to **minimize** impacts – not just identify or consider them – when designating areas or trails for OSV use, and to demonstrate in the administrative record how it did so. To satisfy its substantive duty to minimize impacts, the Forest Service must apply a transparent and common-sense methodology for meaningful application of *each* minimization criterion to *each* area and trail being considered for designation. That methodology must include several key elements.

First, proper application of the minimization criteria is not solely an office exercise. Rather, the Forest Service must consider new information that is brought through the public process and actually apply the criteria to minimize resource damage and user conflicts associated with each designated area and route.<sup>90</sup> The Forest Service may not rely on compliance with the relevant forest plan as a proxy for application of the minimization criteria; doing so conflates separate and distinct legal obligations.<sup>91</sup> Unless the Forest Plan itself applies the minimization criteria in

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<sup>87</sup> *Id.* § 3(a).

<sup>88</sup> 36 C.F.R. §§ 212.55, 212.81(d).

<sup>89</sup> See *Friends of the Clearwater v. U.S. Forest Serv.*, No. 3:13-CV-00515-EJL, 2015 U.S. Dist. LEXIS 30671, at \*37-52 (D. Idaho Mar. 11, 2015); *The Wilderness Soc’y v. U.S. Forest Serv.*, No. CV08-363-E-EJL, 2013 U.S. Dist. LEXIS 153036, at \*22-32 (D. Idaho Oct. 22, 2013); *Cent. Sierra Envtl. Res. Ctr. v. U.S. Forest Serv.*, 916 F. Supp. 2d 1078, 1094-98 (E.D. Cal. 2012); *Wildlands CPR v. U.S. Forest Serv.*, 872 F. Supp. 2d 1064, 1081-82 (D. Mont. 2012); *Idaho Conservation League v. Guzman*, 766 F. Supp. 2d 1056, 1071-74 (D. Idaho 2011).

<sup>90</sup> See, e.g., *Idaho Conservation League*, 766 F. Supp. 2d at 1074-77 (invalidating travel management plan that failed to utilize monitoring and other site-specific data showing resource damage).

<sup>91</sup> See *Friends of the Clearwater*, 2015 U.S. Dist. LEXIS 30671, at \*46 (“Merely concluding that the proposed action is consistent with the Forest Plan does not . . . satisfy the requirement that the Forest Service provide some explanation or



management area designations, and the development of plan components, complying with the Forest Plan does not equal complying with the minimization criteria.

Second, effective application of the minimization criteria must include meaningful opportunities for public participation and input early in the planning process. In many cases, public lands users and other stakeholders are the best source of information for identifying resource and user conflicts. We applaud the Flathead NF for spending the time to gather this information from users both before and during the scoping process.

Third, application of the minimization criteria should be informed by the best available scientific information and associated strategies and methodologies for minimizing impacts to particular resources.<sup>92</sup> Winter Wildlands Alliance recently published a comprehensive literature review and best management practices (BMPs) for OSV use on National Forests (attached).<sup>93</sup> The BMPs provide guidelines, based on peer-reviewed science, for OSV designation decisions that are intended to minimize conflicts with other winter recreational uses and impacts to wildlife, water quality, soils, and vegetation. The Flathead NF should incorporate these BMPs into its forest plan components and winter travel planning decisions. In addition to the generalized BMPs, application of the minimization criteria should incorporate any site or resource-specific scientific information or analysis. For example, to effectively minimize the significant noise impacts associated with OSV use, the Forest Service should conduct soundscape modeling and incorporate the results of that modeling into its decision-making.<sup>94</sup> Other site or resource-specific information might include, for example, air quality modeling or monitoring; wildlife population, habitat, or monitoring data; or visitor use data. Also, it is important that the Forest revisit plan decisions as necessary to ensure use conflicts are being minimized and motorized impacts are below accepted thresholds. This may include closing snowmobile routes and areas when motorized use is leading to trespass onto non-motorized trails or areas or where there is increasing wildlife conflict.

Fourth, proper application of the minimization criteria must address both site-specific and larger-scale impacts.<sup>95</sup> For example, the Forest Service must assess and minimize landscape-scale impacts such as habitat fragmentation; cumulative noise, and air and water quality impacts; and degradation of wilderness-quality lands and associated opportunities for primitive forms of recreation. The agency also must assess and minimize site-specific impacts to soils, vegetation, water, and other public lands resources, sensitive wildlife habitat, and important areas for non-motorized recreation.

Fifth, the Forest Service should account for predicted climate change impacts in its application of

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analysis showing that it considered the minimizing criteria and took some action to minimize environmental damage when designating routes.”).

<sup>92</sup> See *Friends of the Clearwater*, 2015 U.S. Dist. LEXIS 30671, at \*24-30, 40-52 (invalidating route designations that failed to consider best available science on impacts of motorized routes on elk habitat effectiveness or to select routes with the objective of minimize impacts to that habitat and other forest resources).

<sup>93</sup> Winter Wildlands Alliance, *Snowmobile Best Management Practices for Forest Service Travel Planning: A Comprehensive Literature Review and Recommendations for Management* (Dec. 2014), available at <http://winterwildlands.org/wp-content/uploads/2015/02/BMP-Report.pdf>.

<sup>94</sup> See, e.g., *Snowmobile Best Management Practices*, pp. 6-7 (describing noise simulation modeling used in Yellowstone National Park).

<sup>95</sup> See, e.g., *Idaho Conservation League*, 766 F. Supp. 2d at 1066-68, 1074-77 (invalidating travel plan that failed to consider aggregate impacts of short motorized routes on wilderness values or site-specific erosion and other impacts of particular routes).

the minimization criteria and designation decisions.<sup>96</sup> Already climate change is leading to reduced and less reliable snowpack and increasing the vulnerability of wildlife, soils, and water resources to disturbance, compaction, and pollution impacts associated with OSV use.<sup>97</sup> For this, and the previous points, the DEIS must show how best available science was used in its analysis.

Finally, application of the minimization criteria must take into account available resources for monitoring and enforcement of the designated system.<sup>98</sup> To ease enforcement obligations and ensure user compliance in the first place, OSV designation decisions should establish clear boundaries and simple, consistent restrictions designed to minimize resource damage and recreational use conflicts.

### **3. Area designations**

The Forest Service's substantive duty to minimize impacts associated with OSV use applies to both area and route designations. Minimization of impacts associated with OSV area allocations is particularly important because the OSV rule permits the Forest Service to designate larger areas open to cross-country travel than in the summer-time travel planning context. The rule, however, requires that designated areas be "discrete," "specifically delineated," and "smaller...than a ranger district."<sup>99</sup> And, as described above, the Forest Service must locate any such areas to *minimize* resource damage and recreational use conflicts.

Forest planning is a large-scale decision making process in which general areas of the forest are deemed suitable or not suitable for certain activities with the understanding that future NEPA analysis is needed to make further management designations for specific areas. For example, although a large swath of the forest may be deemed suitable for timber production, the specific areas where logging occurs are determined during a project-level analysis. Likewise, although the forest plan may deem a general part of the forest suitable for OSV use, future travel planning must occur to designate the specific area in which cross-country travel is allowed. This has been the standard procedure for wheeled vehicle travel planning, with the Forest Plan determining Recreation Opportunity Spectrum designations and Subpart B travel planning determining which specific trails and areas are open to OHVs. However, because areas open to OSV cross-country travel are often considerably larger than OHV open areas, we are concerned that forest plan suitability designations may, in practice, foreclose subsequent OSV planning efforts. It is not acceptable for the forest to default to allowing OSV use across an entire "suitable" area. If the forest does choose to integrate OSV travel planning into forest planning it is essential that any areas designated as open for OSVs meet the minimization criteria as described above. Integrating winter travel planning – designating OSV routes and areas - into the forest plan revision process will require a much finer scale of analysis than what is needed to determine suitability.

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<sup>96</sup> See, e.g., 77 Fed. Reg. 77,801, 77,828-29 (Dec. 24, 2014) (Council on Environmental Quality's revised draft guidance on consideration of climate change in NEPA states: "Climate change can increase the vulnerability of a resource, ecosystem, human community, or structure, which would then be more susceptible to climate change and other effects and result in a proposed action's effects being more environmentally damaging. . . . Such considerations are squarely within the realm of NEPA, informing decisions on whether to proceed with and how to design the proposed action so as to minimize impacts on the environment, as well as informing possible adaptation measures to address these impacts, ultimately enabling the selection of smarter, more resilient actions.").

<sup>97</sup> See *Snowmobile Best Management Practices*, pp. 4-5, 10, 13.

<sup>98</sup> See *Sierra Club v. U.S. Forest Serv.*, 857 F. Supp. 2d 1167, 1176-78 (D. Utah 2012) (NEPA requires the agency to take a hard look at the impacts of illegal motorized use on forest resources and the likelihood of illegal use continuing under each alternative).

<sup>99</sup> 36 C.F.R. § 212.1 (definition of "area").

Area designations and Recreation Opportunity Spectrum (ROS) designations are two separate, albeit related, designations. As mentioned above, forest planning is a broad-brush process in which general suitability for various activities is determined. The ROS classification system and management area classifications are both useful tools but they do not reach the level of specificity required by travel planning. Backcountry motorized, semi-primitive motorized, and road natural ROS settings provide a good starting point for where to designate OSV routes and areas but the Forest Service should not assume that all OSV use should be allowed across the entirety of these areas, or across all management areas classified as 5c (backcountry motorized over-snow vehicle use). The Flathead NF needs to take the extra step of designating areas *within* the motorized ROS spectrum and MA5c. Winter semi-primitive motorized areas, and winter roaded natural areas both provide quality backcountry ski experiences. Many people enjoy Nordic skiing and touring on snow-covered forest roads and having an opportunity to do so without having to contend with motorized activity is a valuable experience that the Flathead NF must recognize and accommodate. Therefore, it is important that the Forest go beyond simply relying on ROS classifications to determine where OSV use will be allowed.

To satisfy legal requirements of the OSV Rule, the Forest Service must look closely at the entire forest and designate as open only those discrete, delineated areas that are appropriate for cross-country OSV use and minimize environmental damage and conflicts with other recreational uses. Open areas should have easily enforceable boundaries using topographic or geographic features such as a ridgetop, highway, or watershed boundary. All other areas that are not determined to be appropriate for open designation then must be closed (or limited to designated routes), thus moving the forest into a “closed unless designated open” management regime. The Flathead NF is ahead of many forests in this regard, as OSVs are already managed under a “closed unless designated open” framework.

#### **4. Trail designations**

As with area designations, the Forest Service must locate any designated routes to *minimize* resource damage and user conflicts. Under the plain terms of the Executive Orders, the Forest Service must apply the minimization criteria to *all* trails designated for OSV use – even if those trails are located in areas of the forest that would be designated as open to cross-country OSV use. When designated and placed on a map, trails focus the impacts of OSV use to those locations and generally increase the number of OSV users visiting the area. This is particularly true of groomed trails within areas otherwise open to cross-country travel. Groomed trails are desirable for traveling faster and further into remote areas. In addition, grooming often results in widening the footprint of the trail. The widened trail is then used in summer by wheeled motorized vehicles resulting in other impacts and conflicts. The site-specific nature of trail designations does not easily fit within the forest planning process. Thus, a separate travel planning process will likely be necessary to ensure OSV route designations comply with the minimization criteria.

#### **5. Other mitigation measures**

Efforts to *mitigate* impacts associated with a designated OSV system are insufficient to fully satisfy the duty to *minimize* impacts, as specified in the Executive Orders.<sup>100</sup> Thus, application of the minimization criteria should be approached in two steps: first, the agency locates areas and routes to minimize impacts, and second, the agency establishes site-specific management actions to further reduce impacts.

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<sup>100</sup> See Exec. Order 11,644, § 3(a) (“Areas and trails shall be *located* to minimize” impacts and conflicts.).

Minimum snow depth restrictions can be an important tool in further minimizing impacts associated with a designated OSV system – particularly with climate change leading to reduced and less reliable snowpack. Although the Flathead has historically enjoyed abundant winter snows, it is likely that future winters will see less snow overall and a change in when snow is on the ground. The snowmobile use season set by the Forest serves as a useful bookend and is in accordance with the OSV Rule,<sup>101</sup> but we suggest an additional forest plan standard that would require minimum snow depths of at least 18 inches, which is consistent with the best available science and necessary to minimize impacts to water quality, soils, and vegetation and to buffer for variable snow conditions.<sup>102</sup> Minimum snow depths should be consistent throughout the forest to avoid enforcement difficulties.

Other mitigation measures may include, for example, Best Available Technology requirements for OSV noise and emissions controls, particularly in sensitive or high-conflict areas; separate trailhead/parking/staging areas for OSV open areas and high-demand OSV routes; adequate design and maintenance of designated routes, including bridges, culverts, and roadbed to reduce hydrological and erosion impacts during spring run-off; and public education, outreach, monitoring, enforcement, and adaptive management efforts.

## **6. Integrating the minimization criteria with the NEPA process**

Application of the minimization criteria under the Executive Orders and analysis of the direct, indirect, and cumulative impacts of a range of reasonable alternatives under NEPA should complement and reinforce one another. As discussed above, the Executive Orders require application of the minimization criteria to *each* designated area and route, and the corresponding NEPA analysis should analyze impacts associated with the *entire* system proposed for designation under each alternative – regardless of the extent to which that system is already reflected in current OSV management. Where the Forest Service is proposing to designate OSV use for the indefinite future, the impacts – direct, indirect, and cumulative – from that authorization must be fully disclosed and analyzed.

The NEPA analysis for any winter travel management decisions must analyze – and *minimize* – the impacts of designations that allow continued OSV travel in those areas. Similarly, the Forest Service must analyze and minimize impacts associated with designating existing OSV routes that have not previously been subject to NEPA or the minimization criteria. This is, of course, in addition to analyzing and minimizing impacts associated with designating any new or previously illegal, user-created areas or trails.

## **7. Current and anticipated future over-snow uses**

Human-powered snowsports are the fastest growing segment of winter recreation and include backcountry skiing, alpine touring, snowshoeing and cross-country skiing. According to SnowSports Industries America (SIA), nearly five million human-powered skiers and snowboarders explored the backcountry during the 2010/2011 season<sup>103</sup>. In 2013 over 4 million snowshoers and

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<sup>101</sup> 36 C.F.R. § 212.81(a) (OSV rule permits agency to designate areas or trails by “time of year” to tailor designation decisions to account for snowfall patterns).

<sup>102</sup> *Snowmobile Best Management Practices*, p. 14.

<sup>103</sup> Snowsports Industries of America 2014 Backcountry Retail Kit

3.3 million cross-country skiers ventured into the backcountry<sup>104</sup>. The Outdoor Foundation's 2013 Outdoor Recreation Participation Report found that over the previous five years national participation in telemark skiing increased by 87%, with a 13% increase in the past 3 years<sup>105</sup>. Of all forms of active outdoor recreation studied, telemark skiing had the third highest rates of growth. In addition, the latest Forest Service National Visitor Use Monitoring Results report states that 5.3% of visitors to National Forest lands participated in cross-country skiing and 4.1% of visitors reported that cross-country skiing was their primary activity<sup>106</sup>. The Forest Service does not differentiate between cross-country skiing, snowshoeing, and other forms of ski touring. Finally, a 2012 study released by the Physical Activity Council showed single digit annual growth rates in human-powered snowsports, despite a decline in participation in motorized snowsports, and winter recreation in general<sup>107</sup>.

Internal USDA research predicts a similar trend into the future, with undeveloped skiing (which includes ski touring) projected as one of the top five growth activities in the next several decades while motorized snow activities will see one of the lowest rates of participation growth. The number of participants in undeveloped skiing, according to Forest Service research, is projected to increase by 55% – 106% by 2060<sup>108</sup>. During the 2012-2013 season 7% of all alpine skiers, 11% of snowboarders, and 20% of cross-country skiers ventured into the backcountry<sup>104</sup> and sales of backcountry ski and snowboard equipment increase substantially each year.

These figures all show that human-powered winter recreation is becoming ever-more popular on National Forest lands and that participation in these activities will likely only increase into the future. Therefore, it is important that forest managers give weight and consideration to these activities when crafting land, and travel, management plans.

The Forest Service's travel management regulations define an OSV as "a motor vehicle that is designed for use over snow and that runs on a track or tracks and/or a ski or skis, while in use over snow."<sup>109</sup> While the requirements of the new rule apply only to OSVs, effective winter travel management planning and compliance with the minimization criteria requires the Forest Service to account for existing and potential future over-snow recreational uses that may not satisfy the definition of OSV.<sup>110</sup> For example, fat-tire bike riding is an increasing wintertime mechanized use throughout Montana and nationally. Other new types of motorized or mechanized over-snow uses may also exist or be developed over the life of the winter travel plan. The OSV plan and corresponding NEPA analysis should address the non-OSV over-snow uses that are already occurring on the forest, and should anticipate and provide a process for addressing future over-snow uses through updates to the plan. Failure to address these ongoing and foreseeable uses of the forest that may be impacted by OSV designations would result in both an inadequate NEPA analysis and inadequate minimization of conflicts with other uses.

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<sup>104</sup> SIA/Physical Activity Council 2013 Participation Study

<sup>105</sup> Outdoor Foundation's 2013 Outdoor Participation Report. Available at: <http://www.outdoorfoundation.org/research/participation.2013.topline.html>

<sup>106</sup> USDA Forest Service. 2012. National Visitor Use Monitoring Results, National Summary Report. Available at: [http://www.fs.fed.us/recreation/programs/nvum/2012%20National\\_Summary\\_Report\\_061413.pdf](http://www.fs.fed.us/recreation/programs/nvum/2012%20National_Summary_Report_061413.pdf)

<sup>107</sup> Physical Activity Council's 2012 Participation Report. Available at: <http://www.physicalactivitycouncil.com/PDFs/2012PacReport.pdf>

<sup>108</sup> Cordell, Ken. Outdoor recreation trends and futures: a technical document supporting the Forest Service 2010 RPA Assessment. Available at: [http://www.srs.fs.usda.gov/pubs/gtr/gtr\\_srs150.pdf](http://www.srs.fs.usda.gov/pubs/gtr/gtr_srs150.pdf)

<sup>109</sup> 36 C.F.R. § 212.1.

<sup>110</sup> See Exec. Order No. 11,644, § 3(a)(3) ("Areas and trails shall be located to minimize conflicts between off-road vehicle use and other *existing or proposed* recreational uses of the same or neighboring public lands . . .").

**8. The Forest Service may not rely on previous OSV decisions that are outdated or failed to apply the minimization criteria.**

The new OSV rule includes a provision that permits forests to adopt existing OSV management decisions under certain circumstances.<sup>111</sup> To the extent the Flathead intends to rely on that grandfathering provision, it must ensure that Amendment 24 satisfies the requirements of the new rule and any other regulatory requirements. Most critically, the Flathead must ensure that the designations made under Amendment 24 were subject to the minimization criteria and the administrative record must demonstrate that the agency applied the criteria when making any OSV area or route designations. If these designations were not subject to the minimization criteria they should be revisited.<sup>112</sup>

Finally, the Forest Service must ensure that previous decisions are not outdated. Amendment 24 is nearly a decade old and may not have accounted for the increased speed, power, and other capabilities of current OSV technology. It may not account for new scientific information on sensitive wildlife and other forest resources and how they are affected by OSV use. Over the past decade the Flathead NF has had the opportunity to observe how the routes and areas open to OSVs under Amendment 24 impact wildlife and other forest resources. The Flathead NF should examine what has and has not worked in regards to Amendment 24 and change snowmobile management accordingly.

To the extent the Flathead National Forest intends to designate OSV areas or trails through the forest plan revision it must apply the Executive Order minimization criteria to locate those areas and trails to *minimize* resource damage and conflicts with the majority of winter visitors enjoying non-motorized, quiet forms of recreation. In order to incorporate past decisions regarding OSV management, namely those in Amendment 24, the Forest Service must ensure that these past decisions applied, and satisfied, the minimization criteria.

**VII. The Forest Plan Revision Must Provide Direction for Achieving a Sustainable, Minimum Road System**

**A. Background**

**1. The Best Available Science Shows that Roads Cause Significant Adverse Impacts to National Forest Resources.**

National forests provide a range of significant environmental and societal benefits, including clean air and water, habitat for myriad wildlife species, and outdoor recreation opportunities for millions

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<sup>111</sup> See 36 C.F.R. § 212.81(b) (“Public notice with no further public involvement is sufficient if an administrative unit or a Ranger District has made previous administrative decisions, under other authorities and including public involvement, which restrict [OSV] use to designated routes and areas . . . and no change is proposed to these previous decisions.”).

<sup>112</sup> The language of the grandfathering provision does not explicitly require that previous OSV decisions have been subject to the minimization criteria. See 36 C.F.R. § 212.81(b). To the extent the agency interprets the provision to permit adoption of OSV designation decisions that do not satisfy the minimization criteria, the rule itself violates Executive Orders 11,644 and 11,989. See *Winter Wildlands Alliance v. U.S. Forest Serv.*, No. 1:11-CV-586-REB, 2013 U.S. Dist. LEXIS 47728, at \*32 (D. Idaho Mar. 29, 2013) (requiring the agency to promulgate new OSV travel management rule that complies with the Executive Orders and making clear that the orders “require[] the Forest Service to ensure that *all* forest lands are designated for *all* off-road vehicles”).

of visitors and local residents each year.<sup>113</sup> The Forest Service's extensive and decaying road system, however, poses a growing liability to the future ability of the national forests to provide critical environmental, ecosystem, and recreation services. Collectively, the national forests contain over 370,000 miles of system roads (not to speak of tens of thousands of additional miles of unclassified, non-system, temporary, and user-created roads). That is nearly eight times the length of the entire U.S. Interstate Highway System. This road system is primarily a byproduct of the era of big timber; as such, it often is convoluted, unmanageable, and ineffective at meeting 21st-century transportation needs. Much of the system is also in a state of serious disrepair: as of 2014, the national forest road system had a 2.9 billion dollar maintenance backlog.<sup>114</sup>

The Flathead NF is no exception, with 3,519 miles of system roads. By comparison, the entire Montana State Highway System is only 12,945 miles.<sup>115</sup> Yet the Flathead NF's average road maintenance budget in recent years covers only about 43% of the road maintenance costs, resulting a significant backlog of deferred maintenance needs. "The overall trend affecting the Flathead NF transportation system is that budgets for repairs and maintenance are expected to continue to decrease while national requirements and efforts for planning and maintenance continue to increase. During the past two decades, appropriated funding for roads construction and maintenance has decreased while the forest is spending more funding to meet safety standards, implement resource protection measures, and complete agency-required planning efforts."<sup>116</sup>

While well-sited and maintained roads undoubtedly provide important services to society, the adverse ecological and environmental impacts associated with the Forest Service's massive and deteriorating road system are well-documented. Those adverse impacts are long-term, occur at multiple scales, and often extend far beyond the actual "footprint" of the road. The attached literature review surveys the extensive and best-available scientific literature (including the Forest Service's 2000 General Technical Report synthesizing the scientific information on forest roads)<sup>117</sup> on a wide range of road-related impacts to ecosystem processes and integrity on National Forest lands.

Erosion, compaction, and other alterations in forest geomorphology and hydrology associated with roads seriously impair water quality and aquatic species viability.<sup>118</sup> Roads disturb and fragment wildlife habitat, altering species distribution, interfering with critical life functions such as feeding, breeding, and nesting, and resulting in loss of biodiversity.<sup>119</sup> Roads also facilitate increased human intrusion into sensitive areas, resulting in poaching of rare plants and animals, human-ignited wildfires, introduction of exotic species, and damage to archaeological resources.<sup>120</sup>

Climate change intensifies the adverse impacts associated with roads. As the warming climate alters species distribution and forces wildlife migration, landscape connectivity becomes even more

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<sup>113</sup> See generally 36 C.F.R. § 219.1(c) ("range of social, economic, and ecological benefits [of National Forests] . . . include clean air and water; habitat for fish, wildlife, and plant communities; and opportunities for recreational spiritual, educational, and cultural benefits"); 66 Fed. Reg. 3244, 3245-47 (Jan. 12, 2001) (Preamble to Roadless Area Conservation Rule describing key ecosystem and other services of roadless National Forest lands).

<sup>114</sup> USDA, Forest Service, National Forest System Statistics FY 2014.

<sup>115</sup> <http://www.mdt.mt.gov/publications/docs/brochures/factbook.pdf>

<sup>116</sup> Flathead National Forest Assessment, part 2, at 200.

<sup>117</sup> Hermann Gucinski *et al.*, *Forest Roads: A Synthesis of Scientific Information*, Gen. Tech. Rep. PNW-GTR-509 (May 2001), available at <http://www.fs.fed.us/pnw/pubs/gtr509.pdf>.

<sup>118</sup> See Literature Review on the Impacts of Roads, attached at 2-4.

<sup>119</sup> See Literature Review on the Impacts of Roads, attached at 4-6.

<sup>120</sup> See Literature Review on the Impacts of Roads, attached at 6, 9 & Att. 1.

critical to species survival and ecosystem resilience.<sup>121</sup> Climate change is also expected to lead to more extreme weather events, resulting in increased flood severity, more frequent landslides, altered hydrographs, and changes in erosion and sedimentation rates and delivery processes.<sup>122</sup> Many National Forest roads, however, were poorly located and designed to be temporarily on the landscape, making them particularly vulnerable to these climate alterations. And even those designed for storms and water flows typical of past decades may fail under future weather scenarios, further exacerbating adverse ecological impacts, public safety concerns, and maintenance needs.<sup>123</sup>

These road-related impacts are of significant concern on the Flathead NF, and the environmental analysis for the plan revision must analyze them in detail.

Road-related degradation of watersheds and riparian areas on the Flathead NF is also significant, with the assessment noting that: “The most notable alteration of upland conditions that has influenced stream process and function is road development which has been shown to correlate with instream conditions, including substrate composition, large woody debris, and number and quality of pools.”<sup>124</sup>

## **2. Regulatory Framework**

### **a. National Forest System Road Management**

To address its unsustainable and deteriorating road system, the Forest Service promulgated the Roads Rule (referred to as “subpart A”) in 2001.<sup>125</sup> The rule directs each National Forest to conduct “a science-based roads analysis,” generally referred to as the “travel analysis process” or “TAP.”<sup>126</sup> Based on that analysis, forests must first “identify the minimum road system needed for safe and efficient travel and for administration, utilization, and protection of National Forest System lands.”<sup>127</sup> The Rule further defines the minimum road system as:

the road system determined to be needed [1] to meet resource and other management objectives adopted in the relevant land and resource management plan . . . , [2] to meet applicable statutory and regulatory requirements, [3] to reflect long-term funding expectations, [and 4] to ensure that the identified system minimizes adverse environmental impacts associated with road construction, reconstruction, decommissioning, and maintenance.<sup>128</sup>

Forests must then “identify the roads . . . that are no longer needed to meet forest resource management objectives and that, therefore, should be decommissioned or considered for other

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<sup>121</sup> See Literature Review on the Impacts of Roads, attached at 9-14; see also USDA, Forest Service, *National Roadmap for Responding to Climate Change*, at 26 (2011), available at <http://www.fs.fed.us/climatechange/pdf/Roadmapfinal.pdf> (recognizing importance of reducing fragmentation and increasing connectivity to facilitate climate change adaptation).

<sup>122</sup> See Literature Review on the Impacts of Roads, attached at 9.

<sup>123</sup> See USDA, Forest Service, *Water, Climate Change, and Forests: Watershed Stewardship for a Changing Climate*, PNW-GTR-812, at 72 (June 2010), available at [http://www.fs.fed.us/pnw/pubs/pnw\\_gtr812.pdf](http://www.fs.fed.us/pnw/pubs/pnw_gtr812.pdf).

<sup>124</sup> Flathead National Forest Assessment, Part 1, at 19.

<sup>125</sup> 66 Fed. Reg. 3206 (Jan. 12, 2001); 36 C.F.R. part 212, subpart A

<sup>126</sup> 36 C.F.R. § 212.5(b)(1). Forest Service Manual 7712 and Forest Service Handbook 7709.55, Chapter 20 provide detailed guidance on conducting travel analysis.

<sup>127</sup> 36 C.F.R. § 212.5(b)(1)

<sup>128</sup> *Id.*



uses, such as for trails.”<sup>129</sup>

While subpart A does not impose a timeline for agency compliance with these mandates, the Forest Service Washington Office, through a series of directive memoranda, has ordered forests to complete their TAPs by the end of fiscal year 2015, or lose maintenance funding for any road not analyzed.<sup>130</sup> The memoranda articulate an expectation that forests, through the subpart A process, “maintain an appropriately sized and environmentally sustainable road system that is responsive to ecological, economic, and social concerns.” They clarify that TAPs must address *all* system roads – not just the small percentage of roads maintained for passenger vehicles to which some forests had limited their previous Roads Analysis Process reports (RAPs) or TAPs. And they require that TAP reports include a list of roads likely not needed for future use.

The National Best Management Practices for Water Quality Management on National Forest System Lands (Volume 1, April 2012) should also be used to guide road management in forest planning because the “...National BMP Program was developed to improve agency performance and accountability in managing water quality consistent with the Federal Clean Water Act (CWA) and State water quality programs. Current Forest Service policy directs compliance with required CWA permits and State regulations and requires the use of BMPs to control nonpoint source pollution to meet applicable water quality standards and other CWA requirements.”<sup>131</sup> As outlined on page 104:

- Design the transportation system to meet long-term land management plan desired conditions, goals, and objectives for access rather than to access individual sites.
- Limit roads to the minimum practicable number, width, and total length consistent with the purpose of specific operations, local topography, geology, and climate to achieve land management plan desired conditions, goals, and objectives for access and water quality management.

Additionally, the USFS Washington Office is finalizing Volume II which will provide direction on how monitoring of BMP’s should occur in order to achieve water quality protections. Proper BMP implementation, followed by thorough monitoring, is the only way to ensure waterways are protected.

## **b. National Forest System Land Management Planning**

The 2012 Planning Rule, 36 C.F.R. part 219, guides the development, amendment, and revision of forest plans, with an overarching goal of promoting the ecological integrity and ecological and fiscal sustainability of National Forest lands:

Plans will guide management of [National Forest System] lands so that they are ecologically sustainable and contribute to social and economic sustainability; consist of ecosystems and watersheds with ecological integrity and diverse plant and animal communities; and have the capacity to provide people and communities

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<sup>129</sup> *Id.* § 212.5(b)(2). The requirements of subpart A are separate and distinct from those of the 2005 Travel Management Rule, codified at subpart B of 36 C.F.R. part 212, which address off-highway vehicle use and corresponding resource damage pursuant to Executive Orders 11,644, 37 Fed. Reg. 2877 (Feb. 9, 1972), and 11,989, 42 Fed. Reg. 26,959 (May 25, 1977).

<sup>130</sup> Memorandum from Joel Holtrop to Regional Foresters *et al.* re Travel Management, Implementation of 36 C.F.R., Part 212, Subpart A (Nov. 10, 2010); Memorandum from Leslie Weldon to Regional Foresters *et al.* re Travel Management, Implementation of 36 C.F.R., Part 212, Subpart A (Mar. 29, 2012); Memorandum from Leslie Weldon to Regional Foresters *et al.* re Travel Management Implementation (Dec. 17, 2013).

<sup>131</sup> The National Best Management Practices for Water Quality Management on National Forest System Lands. USFS. Volume 1, April 2012.

with ecosystem services and multiple uses that provide a range of social, economic, and ecological benefits for the present and into the future.<sup>132</sup>

To accomplish these ecological integrity and sustainability goals, the rule imposes substantive mandates to establish plan components – including standards and guidelines – that maintain or restore healthy aquatic and terrestrial ecosystems, watersheds, and riparian areas, and air, water, and soil quality. *Id.* § 219.8(a)(1)-(3); *see also id.* § 219.9(a) (corresponding substantive requirement to establish plan components that maintain and restore the diversity of plant and animal communities and support the persistence of native species). The components must be designed “to maintain or restore the structure, function, composition, and connectivity” of terrestrial, riparian, and aquatic ecosystems,<sup>133</sup> must take into account stressors including climate change, and the ability of ecosystems to adapt to change;<sup>134</sup> and must implement national best management practices for water quality.<sup>135</sup> The rule also requires the Forest Service to establish riparian management zones for which plan components “must ensure that no management practices causing detrimental changes in water temperature or chemical composition, blockages of water courses, or deposits of sediment that seriously and adversely affect water conditions or fish habitat shall be permitted.”<sup>136</sup> In addition, plans must include plan components for “integrated resource management to provide for ecosystem services and multiple uses,” taking into account “[a]ppropriate placement and sustainable management of infrastructure, such as recreational facilities and transportation and utility corridors.”<sup>137</sup> Plan components must ensure social and economic sustainability, including sustainable recreation and access.<sup>138</sup> And the Forest Service must “use the best available scientific information” to comply with these substantive mandates.<sup>139</sup>

### **c. Climate Change**

Executive Order 13,653 (Nov. 2013) provides direction on “Preparing the United States for the Impacts of Climate Change.” The Order recognizes that “[t]he impacts of climate change – including an increase in prolonged periods of excessively high temperatures, more heavy downpours, an increase in wildfires, [and] more severe droughts . . . – are already affecting communities, natural resources, ecosystems, economies, and public health across the Nation,” and that “managing th[o]se risks requires deliberate preparation, close cooperation, and coordinated planning . . . to improve climate preparedness and resilience; help safeguard our economy, infrastructure, environment, and natural resources; and provide for the continuity of . . . agency operations, services, and programs.”<sup>140</sup> To that end, the Order requires agencies to take various actions aimed at making “watersheds, natural resources, and ecosystems, and the communities and economies that depend on them, more resilient in the face of a changing climate.”<sup>141</sup> For example, “recognizing the many benefits the Nation’s natural infrastructure provides, agencies shall, where possible, focus on program and policy adjustments that promote the dual goals of greater climate resilience and carbon sequestration.”<sup>142</sup> Agencies also must develop and implement adaptation plans that “evaluate the most significant climate change related risks to, and vulnerabilities in, agency

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<sup>132</sup> 36 C.F.R. § 219.1(c)

<sup>133</sup> *Id.* § 219.8(a)(1) & (a)(3)(i);

<sup>134</sup> *Id.* § 219.8(a)(1)(iv)

<sup>135</sup> *Id.* § 219.8(a)(4)

<sup>136</sup> *Id.* § 219.8(a)(3)(ii)(B)

<sup>137</sup> *Id.* § 219.10(a)

<sup>138</sup> *Id.* § 219.8(b)

<sup>139</sup> *Id.* § 219.3.

<sup>140</sup> Exec. Order 13,653, § 1

<sup>141</sup> *Id.* § 3

<sup>142</sup> *Id.*

operations and missions in both the short and long term, and outline actions . . . to manage these risks and vulnerabilities.”<sup>143</sup>

The Forest Service’s 2014 Climate Change Adaptation Plan recognizes that the wide range of environmental and societal benefits provided by our national forests “are connected and sustained through the integrity of the ecosystems on these lands.”<sup>144</sup> The plan highlights USDA’s 2010-2015 Strategic Plan Goal 2 of “[e]nsur[ing] our national forests . . . are conserved, restored, and made more resilient to climate change, while enhancing our water resources.”<sup>145</sup> And consistent with section 5(a) of Executive Order 13,653, the plan identifies numerous climate change risks – including increased wildfire, invasive species, water temperatures, extreme weather events, and fluctuating precipitation and temperature – that “pose challenges to sustaining forests and grasslands and the supply of goods and services upon which society depends, such as clean drinking water, forest products, outdoor recreation opportunities, and habitat.”<sup>146</sup> With respect to transportation infrastructure specifically, the adaptation plan recognizes that, “[w]ith increasing heavy rain events, the extensive road system on NFS lands will require increased maintenance and/or modification of infrastructure (e.g. larger culverts or replacement of culverts with bridges).”<sup>147</sup>

The adaptation plan points to a number of actions to address these risks. For example, the plan highlights the 2012 Planning Rule as a mechanism to ensure that “National Forest System . . . land management planning policy and procedures include consideration of climate change.”<sup>148</sup> The final directives to the planning rule echo the importance of designing plan components “to sustain functional ecosystems based on a future viewpoint” and “to adapt to the effects of climate change.”<sup>149</sup> The adaptation plan also points to Forest Service Manual 2020, which provides “Ecological Restoration and Resilience” directives designed “to restore and maintain resilient ecosystems that will have greater capacity to withstand stressors and recover from disturbances, especially those under changing and uncertain environmental conditions, including climate change and extreme weather events.”<sup>150</sup>

## **B. The Forest Service Must Address the Road System in its Plan Revision.**

### **1. The Substantive Requirements of the 2012 Planning Rule Require Meaningful Plan Direction on Roads.**

The substantive requirements of the 2012 Planning Rule require the Forest Service to comprehensively address the road system in its plan revision. Given the significant aggregate

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<sup>143</sup> *Id.* § 5(a)

<sup>144</sup> USDA, Forest Service, *Climate Change Adaptation Plan*, p. 58 (May 24, 2012), available at [http://www.usda.gov/oce/climate\\_change/adaptation/Forest%20Service.pdf](http://www.usda.gov/oce/climate_change/adaptation/Forest%20Service.pdf).

<sup>145</sup> Forest Service, *Climate Change Adaptation Plan*, p. 58.

<sup>146</sup> Forest Service, *Climate Change Adaptation Plan*, pp. 60-64.

<sup>147</sup> Forest Service, *Climate Change Adaptation Plan*, p. 62.

<sup>148</sup> Forest Service, *Climate Change Adaptation Plan*, p. 73; see also 36 C.F.R. § 219.8(a)(1)(iv) (ecosystem integrity plan components must take into account stressors including climate change, and the ability of ecosystems to adapt to change); *id.* § 219.6(b)(3) (forest assessments must “[i]dentify and evaluate existing information relevant to the plan area for . . . the ability of terrestrial and aquatic ecosystems on the plan area to adapt to change”); *id.* § 219.5(a) (planning framework designed to allow the Forest Service “to adapt to changing conditions, including climate change”); *id.* § 219.12(a)(5)(vi) (monitoring programs must address “[m]easurable changes on the plan area related to climate change and other stressors”).

<sup>149</sup> FSH 1909.12, ch. 20, § .23.11.

<sup>150</sup> Forest Service, *Climate Change Adaptation Plan*, p. 73.

impacts of that system on landscape connectivity, ecological integrity, water quality, species viability and diversity, and other forest resources and ecosystem services, the Forest Service cannot satisfy the rule's substantive requirements without providing management direction for transportation infrastructure. As described above, plans must provide standards and guidelines to maintain and restore ecological integrity, landscape connectivity, water quality, and species diversity.<sup>151</sup> Those requirements simply cannot be met absent integrated plan components directed at making the road system considerably more sustainable and resilient to climate change stressors. The Forest Service's final directives on infrastructure recognize this: "[t]he central consideration in land management planning for infrastructure is that the integrated desired conditions and other plan components set a framework for the sustainable management of the plan area's infrastructure and mitigation of adverse impacts."<sup>152</sup> To that end, plan components should "reflect the extent of infrastructure that is needed to achieve the desired conditions and objectives of the plan" and "provide for a realistic desired infrastructure that is sustainable and can be managed in accord with other plan components including those for ecological sustainability."<sup>153</sup>

Plan components also must ensure fiscal sustainability. 36 C.F.R. § 219.8(b); *see also id.* § 219.1(g) (plan components generally must be "within . . . the fiscal capability of the unit"); FSH 1909.12, ch. 20, § 23.231(1)(c) (same). The forest road system, however, suffers from an extraordinary maintenance backlog nationally of nearly 3 billion dollars, with inadequately maintained roads more likely to fail, causing corresponding damage to aquatic and other ecological systems and endangering public safety. As described above, the Flathead NF's Travel Analysis Report identifies a large backlog of deferred maintenance needs, with the forest's average annual road maintenance budget in recent years covering only about 42% of the annual costs required to adequately maintain the forest's 3,519-mile road system.<sup>154</sup> Exacerbating the gross inadequacy of funding to maintain the current system to standard, the Flathead NF's Travel Analysis Report identifies many roads not needed or that present a high risk of causing adverse impacts while providing low benefit in providing access opportunities that remain on the system.<sup>155</sup> As with ecological integrity and sustainability, the Forest Service cannot satisfy its mandate to achieve fiscal sustainability absent plan components that remedy the unwieldy size and decaying nature of the road system.

More generally, the revised plan is the logical and appropriate place to establish a framework for management of the forest road system. Plans "provide[] a framework for integrated resource management and for guiding project and activity decisionmaking." 36 C.F.R. § 219.2(b)(1); *see also id.* § 215(e) (site-specific implementation projects, including travel management plans, must be consistent with plan components). Plans allow the Forest Service to comprehensively evaluate the road system in the context of other aspects of forest management, such as restoration, protection and utilization, and fiscal realities, and to integrate management direction accordingly. Plans also provide and compile regulatory direction at a forest-specific level for compliance with the Clean Water Act, Clean Air Act, Endangered Species Act, and other federal environmental laws relevant to the road system and its environmental impacts. *See id.* § 219.1(f) ("Plans must comply with all applicable laws and regulations . . ."). And plans allow forest managers and the public to clearly understand the management expectations around the road system and develop strategies accordingly. With frequent turnover in decision-making positions at the forest level, a plan-level management framework for the road system and transportation infrastructure is particularly

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<sup>151</sup> 36 C.F.R. § 219.8(a)

<sup>152</sup> Forest Service Handbook (FSH) 1909.12, ch. 20, § 23.231

<sup>153</sup> *Id.* § 23.231(1)(b); *see also id.* § 23.231(2)(a) (desired condition for roads "should describe a basic framework for an appropriately sized and sustainable transportation system that can meet [identified access and other] needs").

<sup>154</sup> Flathead National Forest Travel Analysis Report, 12/30/14, at 20.

<sup>155</sup> Flathead National Forest Travel Analysis Report, 12/30/14, Appendix D.

critical. Moreover, with climate change anticipated to necessitate forest-wide upgrades and reconfigurations of transportation infrastructure, it is especially important that plans provide direction for identifying and achieving an environmentally and fiscally sustainable road system under future climate scenarios.

Lastly, the Forest Service does not have another planning vehicle to direct long-term and forest-wide management of the road system and to ensure compliance with current policy and regulatory direction. Travel Management Plans (TMPs) under subpart B of 36 C.F.R. part 212 are not a substitute for the integrated direction for transportation management that land management plans must provide. The main purpose of TMPs is to designate off-road vehicle use on the existing motorized road and trail system – not to identify a minimum road system pursuant to subpart A, achieve a sustainable transportation system, or otherwise meet the ecological restoration mandates of the 2012 Planning Rule.

## **2. The Plan Revision Should Address Subpart A.**

Complementing the substantive requirements of the 2012 Planning Rule, subpart A requires each National Forest to identify its minimum road system, as well as unneeded roads for decommissioning or conversion to other uses.<sup>156</sup> As explained above, the minimum road system must, among other things, reflect long-term funding expectations.<sup>157</sup> The TAP for the Flathead NF, dated 12/31/14, identified likely needed and likely unneeded roads.<sup>158</sup> While this is a critical step (and one that most national forests have yet to undertake), the Flathead NF still must identify its minimum road system and unneeded roads for decommissioning and implement those decisions in order to achieve compliance with subpart A. As the forest's TAP and more recent assessment recognize, the existing road system is not reflective of current or long-term funding expectations and is not sustainable.

The plan revision is the appropriate place to ensure that subpart A's requirements will be met over the next 10 to 15 years, and to set standards and guidelines for achieving an environmentally and fiscally sustainable minimum road system through decommissioning or repurposing unneeded roads and upgrading the necessary portions of the system. Subpart A defines the minimum road system as that "needed for safe and efficient travel[;] for administration, utilization, and protection of [forest] lands[; and] to meet resource and other management objectives adopted in the relevant . . . plan."<sup>159</sup> With forest plans determining the framework for integrated resource management and "an appropriately sized and sustainable transportation system," direction for identifying and achieving that minimum road system belongs in the forest plan.<sup>160</sup>

Indeed, if the revised plan does not provide plan direction towards achieving a sustainable, minimum road system, it is unlikely that the Forest Service will satisfy the requirements of subpart A during the life of the plan (as evidenced by the lack of direction in the existing plan and the inability of forests to achieve environmentally and fiscally sustainable road systems to date). Forest managers and the public need forest-specific direction on how to achieve the desired minimum road system and ensure its sustainability in the face of climate change, all within realistic fiscal limitations of the unit. The purpose of a forest plan is to provide that direction, and it would be

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<sup>156</sup> 36 C.F.R. § 212.5(b)(1)-(2).

<sup>157</sup> *Id.* § 212.5(b)(1).

<sup>158</sup> The TAP was not a robust, to say the least. Out of the 3,519 roads on the forest, just 54 miles were identified as "likely not needed for future use." Many miles roads with high risks and low benefits were deemed "likely needed."

<sup>159</sup> 36 C.F.R. § 212.5(b)(1)

<sup>160</sup> *See* FSH 1909.12, ch. 20, § 23.23l(2)(a).

arbitrary for the Forest Service to fail to do so in its plan revision. At the very least, the revised plan must include standards and guidelines that direct compliance with subpart A within a reasonable timeframe following plan adoption.

### **3. The Forest Service Must Analyze the Road System under the National Environmental Policy Act.**

In addition to the requirements of the 2012 Planning Rule and subpart A, NEPA requires the Forest Service to analyze its road system as part of the forest plan revision process. Because they constitute “major Federal actions significantly affecting the quality of the human environment,” forest plan revisions require preparation of an environmental impact statement (EIS) under NEPA.<sup>161</sup> The EIS must analyze in depth all “significant issues related to [the plan revision].” 40 C.F.R. § 1501.7; *see also id.* § 1502.1 (an EIS “shall provide full and fair discussion of significant environmental impacts” and “shall focus on significant environmental issues and alternatives”). Management of the forest road system and its significant environmental impacts on a range of forest resources undoubtedly qualifies as a significant issue that must be analyzed in the plan revision EIS.<sup>162</sup>

A robust NEPA analysis of the forest road system and its environmental and social impacts is especially critical in the context of climate change. As the Council on Environmental Quality’s recent draft guidance on addressing climate change in NEPA analyses recognizes, “[c]limate change can increase the vulnerability of a resource, ecosystem, human community, or structure, which would then be more susceptible to climate change and other effects and result in a proposed action’s effects being more environmentally damaging.”<sup>163</sup> The draft CEQ guidance makes clear that “[s]uch considerations are squarely within the realm of NEPA, informing decisions on whether to proceed with and how to design the proposed action so as to minimize impacts on the environment, as well as informing possible adaptation measures to address these impacts, ultimately enabling the selection of smarter, more resilient actions.”<sup>164</sup>

Importantly, adequate analysis of the forest road system cannot be provided in a piecemeal fashion under other, individual resource topics in the EIS. That approach would preclude comprehensive analysis of the significant impacts associated with the road system and could result in fragmented and conflicting management direction that fails to satisfy the substantive mandates of the 2012 Planning Rule and subpart A.

### **4. Recommended Plan Components for a Sustainable Road System**

The plan components of the revised forest plan should integrate a variety of approaches to satisfy the substantive mandates of the 2012 Planning Rule and subpart A. The following recommendations are based on the Forest Service’s current roads policy framework and relevant legal requirements, which are described above, and on the best available science, which is summarized in the attached literature review and which the Forest Service is required to utilize

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<sup>161</sup> 42 U.S.C. § 4332(2)(C); 36 C.F.R. § 219.5(a)(2)(i)

<sup>162</sup> NEPA analysis as part of a previous travel management planning process under subpart B does not satisfy the Forest Service’s duty to comprehensively analyze the impacts of its road system in the EIS for the plan revision. As explained above, the purpose of the TMP is to designate existing roads and trails available for off-road vehicle use, not to identify and provide a framework for a sustainable road system.

<sup>163</sup> Council on Environmental Quality, *Revised Draft Guidance for Greenhouse Gas Emissions and Climate Change Impacts*, at 22 (Dec. 18, 2014), available at <http://www.whitehouse.gov/administration/eop/ceq/initiatives/nepa/ghg-guidance>.

<sup>164</sup> *Id.*

under the 2012 Planning Rule. Where applicable, the recommended plan components also incorporate information from the Forest Assessment Report and other relevant sources of information.

Moving towards an environmentally and fiscally sustainable minimum road system requires removal of unneeded roads (both system and non-system) to reduce fragmentation and the long-term ecological and maintenance costs of the system. Reconnecting islands of unroaded forest lands is one of the most effective actions land managers can take to enhance forests' ability to adapt to climate change. To that end, the revised plan should prioritize reclamation of unauthorized and unneeded roads in roadless areas (both Inventoried Roadless Areas under the 2001 Roadless Area Conservation Rule and newly inventoried areas under FSH 1909.12, Chapter 70), important watersheds, and other sensitive ecological and conservation areas and corridors.

In addition to creating a connected network of un-roaded and lightly-roaded lands, the plan should address roads-related impairment of watersheds, as identified by the WCF roads and trails indicator and section 303(d) of the Clean Water Act, 33 U.S.C. § 1313(d). The revised plan should prioritize removal of unneeded and unauthorized roads in watersheds functioning at risk or in an impaired condition, or that contain 303(d) segments impaired by sediment or temperature associated with roads. More generally, the plan must implement national best management practices (BMPs) for water quality, 36 C.F.R. § 219.8(a)(4), and plan components should integrate BMPs into management direction aimed at reducing the footprint and impacts of the forest road system and ensure they are effective in doing so. BMP's must be effective as evidenced by monitoring per the National Core BMP Monitoring Guide being finalized by the USFS Washington Office.

A sustainable road system also requires maintenance and modification of needed roads and transportation infrastructure to make it more resilient to extreme weather events and other climate stressors. *See* Exec. Order 13,653, §§ 1, 3, 5(a) (agency tasked with enhancing resilience and adaptation to climate change impacts). Plan components should direct that needed roads be upgraded to standards able to withstand more severe storms and flooding by, for example, replacing under-sized culverts and installing additional outflow structures and drivable dips. *See also* FSH 1909.12, ch. 20, § 23.231(2)(b)(1) (plan components may include road improvement objectives for culvert replacement or road stabilization). Plan components should also prioritize decommissioning of roads that pose significant erosion hazards or are otherwise particularly vulnerable to climate change stressors, and should address barriers to fish passage. *See* FSH 1909.12, ch. 20, § 23.21(2)(b)(1) (plan components may include decommissioning objectives).

In addition to reducing fragmentation and enhancing climate change adaptation, adoption of road density thresholds for important watersheds, migratory corridors and other critical wildlife habitat, and general forest matrix is one of the most effective strategies for achieving an ecologically sustainable road system. Indeed, there is a direct correlation between road density and various markers for species abundance and viability. *See* FSH 1909.12, ch. 10, § 12.13 & Ex. 01 (identifying road density as one of the "key ecosystem characteristics for composition, structure, function, and connectivity" used to assess the "status of ecosystem conditions regarding ecological integrity"). Plan components should incorporate road density thresholds, based on the best available science, as a key tool in achieving a sustainable minimum road system that maintains and restores ecological integrity. *See* FSH 1909.12, ch. 20, § 23.231(2)(a) (desired condition for road system may describe desired road density for different areas). In doing so, it is critical that the density thresholds apply to all motorized routes, including closed, non-system, and temporary roads, and motorized trails.

A sustainable road system must also be sized and designed such that it can be adequately maintained under current fiscal limitations. See FSH 1909.12, ch. 20, § 23.23l(1)(c) (plan components for road system “must be within the fiscal capability of the planning unit and its partners”). Inadequate road maintenance leads to a host of environmental problems.<sup>165</sup> It also increases the fiscal burden of the entire system, since it is much more expensive to fix decayed roads than maintain intact ones, and it endangers and impedes access for forest visitors and users as landslides, potholes, washouts and other failures occur.

### **Recommendations:**

To integrate the approaches described above and satisfy the substantive mandates of the 2012 Planning Rule and subpart A, we recommend the following plan components and elements, which are supported by best available science, as the building blocks of a framework for sustainable management of forest roads and transportation infrastructure:

- *Clearly and comprehensively articulate all regulatory requirements applicable to transportation infrastructure.*

This could be accomplished in a background section that explains the requirements of subpart A, related implementing memoranda, and other regulatory requirements related to roads management (e.g., U.S. Fish & Wildlife Service critical habitat and other Endangered Species Act requirements; requirements under Executive Order and associated adaptation plans; applicable best management practices; Roadless Area Conservation Rule requirements; etc.). The explanation of subpart A must make clear that the Flathead NF is required to complete a science-based analysis to identify a minimum road system and unneeded roads for decommissioning or conversion to other uses, and to implement those findings. Ideally, plan components will provide direction for expeditiously identifying and implementing the minimum road system through a subsequent NEPA process and future project-level actions, as described below.

- *Desired Future Condition includes achievement and maintenance of an appropriately sized and environmentally and fiscally sustainable minimum road system.*

The Forest Service’s current roads management policy framework is generally aimed at shrinking the agency’s vast and decaying road system and its host of adverse environmental and social impacts. Accordingly, the desired future condition for transportation infrastructure should include a well-maintained system of needed roads that is fiscally and environmentally sustainable and provides for safe and consistent access for the utilization and protection of the forest. That forest road system is designed and maintained to withstand future storm events associated with climate change and to prioritize passenger vehicle access to major forest attractions. The road system reflects long-term funding expectations. Unneeded roads, including temporary and non-system roads, are decommissioned and reclaimed as soon as practicable to reduce environmental and fiscal costs. Reclamation efforts are prioritized in roadless and other ecologically sensitive areas to enhance ecological integrity and connectivity and to facilitate climate change adaptation. The system meets density standards, based on the best available science, for all motorized routes in important watersheds and wildlife habitat, migratory corridors, and general forest matrix, and for relevant threatened and endangered species and species of conservation concern. Road construction, reconstruction,

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<sup>165</sup> See Literature Review on the Impacts of Roads, attached at 14-15.



decommissioning, and maintenance activities are designed to minimize adverse environmental impacts. Passenger vehicle roads are maintained to standard to ensure reliable access to popular developed recreation sites.

- *Objectives provide a concise, measurable, and time-specific statement of a desired rate of progress towards achieving a sustainable minimum road system.*
  1. Over the life of the plan, decommission all roads identified as likely not needed for future use in the TAP. Within 10 years of plan approval, decommission high-priority, unneeded roads with the most benefit in achieving an ecologically and fiscally sustainable transportation network (e.g., roads posing a high risk to forest resources, roads in inventoried roadless areas and other ecologically sensitive areas, etc.).
  2. Identify the Minimum Road System, as outlined in Standard #2, and over the life of the plan, implement the minimum road system.
  3. Within 10 years of plan approval, address all roads within at-risk and impaired watersheds according to the WCF with roads and trails indicator of poor and fair, and within watersheds where roads contribute to sediment or temperature impairment of under section 303(d) of the Clean Water Act.
- *Standards ensure that roads do not impair ecological integrity and otherwise satisfy the substantive requirements of the 2012 Planning Rule and subpart A.*
  1. To ensure ecological integrity and species viability, establish density standards based on the best available science for all motorized routes:
    - a. In important watersheds, wildlife habitat, migratory corridors, and general forest matrix; and
    - b. For relevant species or resources present on the forest, including but not limited to threatened and endangered species and species of conservation concern.
  2. Within 3 years of plan adoption, the forest shall identify its minimum road system and an implementation strategy for achieving that system that is consistent with forest plan direction and relevant regulatory requirements.
  3. The forest shall make annual progress toward achieving the minimum road system and motorized route density standards, including but not limited to decommissioning 5% of roads identified through TAPs as unneeded each year.
  4. The forest shall identify and update as necessary its road management objectives for each system road and trail.
  5. With respect to temporary roads, the forest shall:
    - a. Within 5 years of plan approval, establish a publicly available system for tracking temporary roads that includes but is not limited to the following information: road location, purpose for road construction, the project-specific plan required below, year of road construction, and projected date by which the road will be decommissioned. Within 10 years of plan

- approval, all temporary roads will be reflected in the tracking system.
- b. Establish a policy that “No temporary road shall be constructed . . . prior to the development of a project-specific plan that defines how the road shall be managed and constructed. The plan must define the road design, who are responsible parties and their roles in construction, maintenance and decommissioning, the funding source, a schedule for construction, maintenance and decommissioning, the method(s) for decommissioning, and post-decommissioning monitoring requirements for determining decommissioning success.”<sup>166</sup>
  - c. Close and rehabilitate all temporary roads within a reasonably short time following completion of the use of the road.
  - d. Decommission all unaddressed temporary roads over the life of the plan.
6. All roads, including temporary roads, will comply with applicable and identified Forest Service best management practices for water management. Additionally, BMP’s should be monitored for effectiveness as per the National BMP Monitoring Guidance.
  7. With respect to riparian management zones, the forest shall ensure that all management practices and project-level decisions with road-related elements in riparian habitat conservation areas do not cause detrimental changes in water quality or fish habitat.
  8. Watershed restoration action plans address road-related impacts identified in the TAP.
- *Guidelines are designed to achieve a sustainable minimum road system.*
    1. Project-level decisions with road-related elements implement TAP recommendations and advance implementation of the minimum road system and motorized route density standards.
    2. Routes identified for decommissioning through the TAP or other processes will be closed, decommissioned, and reclaimed to a stable and more natural condition as soon as practicable.
    3. Prioritize road decommissioning to enhance landscape connectivity and ecological integrity based on:
      - a. Effectiveness in reducing fragmentation, connecting un-roaded and lightly-roaded areas, and improving stream segments, with a focus on inventoried roadless areas, important watersheds, and other sensitive ecological and conservation areas and corridors;
      - b. Benefit to species and habitats;
      - c. Addressing impaired or at-risk watersheds;
      - d. Elimination of sediment inputs to meet Clean Water Act requirements;
      - e. Achieving motorized route density standards; and
      - f. Enhancement of visitor experiences.

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<sup>166</sup> San Juan National Forest Land and Resource Management Plan, Standard 2.13.22, p. 101.

4. Prioritize maintenance of needed routes based on:
  - a. Storm-proofing needs and opportunities (e.g., relocating roads away from water bodies, resizing or removing culverts, etc.);
  - b. Reducing landscape-scale fragmentation and enabling landscape-scale processes;
  - c. Restoring aquatic and terrestrial habitats and habitat connections;
  - d. Eliminating sediment inputs to meet Clean Water Act requirements; and
  - e. Increasing resilience.

## **VIII. Climate Change**

The 2012 planning rule's substantive ecological sustainability provision requires the Forest Service to formulate:

"[P]lan components, including standards and guidelines, to maintain or restore the ecological integrity of terrestrial and aquatic ecosystems and watersheds in the plan area, including plan components to maintain or restore structure, function, composition, and connectivity, taking into account:

...

(iv) System drivers, including dominant ecological processes, disturbance regimes, and stressors, such as...climate change; and the ability of terrestrial and aquatic ecosystems on the plan area to adapt to change." <sup>167</sup>

We propose a 3-zone approach for an adaptive land management scheme that addresses climate change. The 3-zone approach is based on many of the suggested sources of information identified in the directives and should be considered information brought forward during the public participation process.

In 1989, Arno and Brown proposed a scheme intended to focus fire suppression where it would produce the greatest benefit and to allow fire to restore plant community structure and fire regimes where safe. This 3-zone fire management strategy segregated landscapes into a wilderness fire zone, a "residential zone" (i.e. WUI), and a zone in between where fuels should be managed through forestry. Aplet and Wilmer (2010) expanded on this idea to argue for restoration forestry beyond the WUI and a dramatic expansion of the wilderness fire zone to include all areas sufficiently distant from communities that fire is not an immediate concern.

The Flathead NF is perfectly suited to implement this three-zone strategy. WUI, fire-prone forest suitable for restoration, and remote backcountry all exist to varying degrees on the forest. In contrast to fire management, which is a relatively tractable issue, where intervention under a stable climate may be seen as a one-time, "corrective" action, management under a changing climate presents an ongoing puzzle. How should we respond to pressures, like climate change, that are irreversible and whose effects are largely unknown? Under such uncertainty, management requires an experimental approach. The three-zone strategy described above may be applied simply as a fire management scheme, but it may equally be applied as an adaptive management experiment.

Active adaptive management requires experimenting with a diversity of approaches, monitoring

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<sup>167</sup> 36 C.F.R. § 219.8(a)(1)

the results of each, and adapting future management based on what is learned. Instead of a single, “optimal” approach, adaptive management under climate change will require a “portfolio approach” in which different parts of the landscape are managed to achieve different outcomes as the climate changes (Belote et al. 2014). Under this scheme, some parts of the landscape would be devoted to forestalling change through the process of ecological restoration, some parts would be devoted to innovative management that anticipates climate change and guides ecological change to prepare for it, and other parts are left to change on their own time to serve as scientific “controls” and to hedge against the unintended consequences of active management elsewhere. Uncertainty about how ecosystems and species will respond to co-occurring, interactive, and synergistic impacts of the “Anthropocene” precludes us from knowing which strategy will best sustain wildland values into the future. All three strategies should be implemented in an experimental portfolio approach that spreads risk among different strategies.

We request the forthcoming impacts analysis include a fiscal analysis that takes into account the economics of fuels treatments. We believe a fiscal analysis could help the Flathead NF identify what is feasible in terms of vegetation treatments which should, in turn, help the Flathead NF develop achievable and realistic management direction.

We request that the fiscal analysis consider, at the very least, the following factors: 1) What is the Flathead NF’s projected annual budget for mechanical treatments? This can be easily calculated based on a 10-year running average. 2) How many acres can the Flathead NF reasonably expect to mechanically treat each year with its projected budget, taking into account the necessary NEPA review?<sup>168</sup> 3) Based on best available science, how frequently will the Flathead NF need to treat the WUI in order to protect communities from a fire? We request that the Flathead NF attempt to answer these questions and utilize this information as it develops direction for addressing vegetation management.

We request that the Flathead NF take a “portfolio” approach for responding to climate change in the forest plan. This portfolio approach is an adaptive management strategy that is comprised of three zones:

- Restoration Zone: areas that are devoted to forestalling change through the process of ecological restoration
- Innovation Zone: areas (such as the WUI) that are devoted to innovative management that anticipates climate change and guides ecological change to prepare for it; and
- Observation Zone: areas (such as designated wilderness, IRAs, and the Flathead NF’s Chapter 70 wilderness inventory) that are left to change on their own time to serve as scientific “controls” and to hedge against the unintended consequences of activities management elsewhere.

## **IX. Lynx**

### **A. The Flathead NF PA fails to consider and adequately document the best scientific data available.**

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<sup>168</sup> This would take into account the cost per acre to mechanically thin versus prescribed burning.

On March 24, 2000, the U.S. Fish and Wildlife Service (FWS) listed the contiguous United States DPS of the Canada lynx (*Lynx canadensis*) as threatened under the ESA.<sup>169</sup> The ESA requires that “each agency shall use the best scientific and commercial data available,”<sup>170</sup> and consult with the FWS to determine whether a proposed action is “likely to . . . adversely affect” a designated species.<sup>171</sup> Similarly, regulations adopted pursuant to the NFMA require that officials responsible for land management plans Forest “use the best available scientific information to inform the planning process.”<sup>172</sup> In doing so, the U.S. Forest Service (“USFS”) “shall document how the best available scientific information was used to inform the assessment,” and must “[i]dentify what information was determined to be the best available scientific information, explain the basis for that determination, and explain how the information was applied to the issues considered.”<sup>173</sup>

In 2007, the Northern Rockies Lynx Amendment (NRLMD) amended 18 USFS Northern Region Forest Plans, including the Flathead NF, to incorporate habitat management direction on NFS lands for the threatened Canada lynx. However according to the Proposed Action, since 2007 “new information on Canada lynx has been published;” the FWS designated new critical habitat; there is an updated version of the Lynx Conservation and Assessment Strategy<sup>174</sup> [“LCAS”] and there is new science relevant to the lynx in northwest Montana.”<sup>175</sup> Therefore, the a new forest plan is needed to “incorporate management direction and scientific information” into the desired conditions, standards, guidelines, objectives and management strategies, “consistent with the 2012 planning rule.”<sup>176</sup> The Proposed Action then states that the direction put forth in the Proposed Action (hereinafter “PA”) will replace the NRLMD, but only after consultation with the FWS has occurred.<sup>177</sup> Until that time, the PA proposes to follow NRLMD direction.<sup>178</sup>

Currently, however, the PA does not follow the requirements and frequently fails to follow NRLMD direction. For example, at times the PA specifically references NRLMD standards by name and details the PA’s modification to the original NRLMD rule. However, these modifications occur without any FWS consultation or any cited basis whatsoever.

For instance, the PA proposes to modify the VEG S5 standard in the “Canada Lynx Habitat Management” portion of Chapter 1 by adding an exception category. The PA states that “large, frequent fires occur regularly in lynx habitat” and “post-fire tree densities greatly exceed levels needed to provide hare habitat” and over the long-term “inhibit the development of mature multi-store hare and lynx habitat.”<sup>179</sup> The PA suggests that “young forests could be precommercially thinned to promote growth of western larch that are resilient to fire,” while “promoting growth of “dense sub-alpine fire and Engelmann spruce.”<sup>180</sup> The PA would “allow some forested stands in the stand initiation structural stage to be pre-commercially thinning using modified methods, to benefit

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<sup>169</sup> 65 Fed. Reg. 16052 (Mar. 20, 2000).

<sup>170</sup> 16 U.S.C. § 1536(a)(2).

<sup>171</sup> 50 C.F.R. §§ 402.01(b), 402.12(a).

<sup>172</sup> 36 C.F.R. § 219.3 (2012).

<sup>173</sup> *Id.*

<sup>174</sup> Interagency Lynx Biology Team. 2013. Canada lynx conservation assessment and strategy (LCAS), 3rd edition. USDA Forest Service, USDI Fish and Wildlife Service, USDI Bureau of Land Management, and USDI National Park Service. Forest Service Publication R1-13-19, Missoula, MT.

<sup>175</sup> <sup>175</sup> USDA, U.S. Forest Service, Proposed Action – Revised Forest Plan, Flathead National Forest (PA), pg. 11, March 2015.

<sup>176</sup> *Id.*

<sup>177</sup> *Id.*

<sup>178</sup> *Id.*

<sup>179</sup> PA at 11.

<sup>180</sup> *Id.*

winter snowshoe hare and lynx habitat by promoting biodiversity and a climate change adaptation strategy that is not currently part of the NRLMD.”<sup>181</sup> The PA explicitly mentions the NRLMD standard through this modification.

However, the PA becomes even more confusing when it modifies NRLMD standards indirectly without explaining either that it is doing so in the first place, or why it is doing so at all. For instance, the PA lists as one of its recreation guidelines that “[l]ocations of designated routes or areas may be shifted across the forest in order to consolidate use, improve enforcement of closed routes or areas, or *to open an area of lower quality lynx habitat in exchange for closing an equivalent acreage area of equal or higher quality lynx habitat.*”<sup>182</sup> This guideline contradicts the NRLMD Objective HU O3 which seeks to “[c]oncentrate activities in existing developed areas, *rather than developing new areas in lynx habitat.*”<sup>183</sup> However, the PA fails to explain the NRLMD basis for this guideline, the modification itself, or the reason for any change to occur. Similarly, the PA contains the term “mapped lynx habitat,” but fails to explain why this term is used and how it is related to critical habitat designation. These types of modifications occur frequently throughout the PA. As a result, the PA essentially creates forest direction with no stated basis in any science, let alone the “best scientific and commercial data” available.

Additionally, after mentioning the LCAS in its introductory remarks on the lynx, the PA never again references the LCAS, and the remainder of the PA only references the 2007 NRLMD, or floats entirely without any referential tether whatsoever. This not only ignores the importance of the LCAS, but it also belies the PA’s stated rationale to update outdated science and the forest plan. It is difficult to understand how the LCAS is essentially ignored after insisting that a new forest plan is necessary is needed to incorporate information from the updated LCAS. More confounding still is how the PA awaits a FWS consultation while ignoring the FWS’ latest publication regarding the lynx. By ignoring the LCAS, the PA fails to consider the best available science and fails to address important considerations regarding the treatment of lynx and lynx critical habitat. The LCAS contains numerous important scientific studies (beyond mentioning here) that must be considered and followed.

In addition to, or as a result of, these structural issues, there are specific problems that must be addressed regarding concerning components of the PA and their effects on lynx and lynx habitat.

## **1. Mapping**

The PA introduction notes that lynx habitat mapping has changed.<sup>184</sup> Meanwhile, within several plan components that are mostly similar to NRLMD components, there now includes the word “mapped” in front of “lynx habitat.” We request clarification to understand why this insertion was deemed necessary. Within the plan, there should be language that describes any future potential for changes to the map, including who would do it, how, and when. Additionally, in Appendix H, Table H-7, it mentions “modeled high quality” lynx habitat.<sup>185</sup> How does “modeled high quality lynx

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<sup>181</sup> *Id.*

<sup>182</sup> *Id.* at 64 (emphasis added).

<sup>183</sup> USDA, U.S. Forest Service, Northern Rockies Lynx Management Direction Record of Decision (NRLMD), Attachment 1 at 6, March 2007 (emphasis added).

<sup>184</sup> “The proposed lynx management direction applies to mapped lynx habitat. Lynx habitat on the Flathead NF was mapped in 2000 and has been updated because the Flathead NF now has new information. Mapped lynx habitat has been updated based upon potential vegetation type, elevation (associated with snow depth), and lynx telemetry locations on the Flathead National Forest.” PA at 11.

<sup>185</sup> PA Appendix H at H-7.

habitat differ from “mapped lynx habitat”?

## 2. Need for Scale

FW-STD-TE&V 02, which appears to be a revised NRLMD Standard ALL S1, notes that “New or expanded vegetation management projects and other activities affecting mapped Canada lynx habitat or designated critical habitat, shall maintain habitat connectivity for Canada lynx, as determined through project level analysis.”<sup>186</sup> ALL S1 from the NRLMD states, “[n]ew or expanded permanent development and vegetation management projects must maintain habitat connectivity in an LAU and/or linkage area,” and Objective ALL O1 states “[m]aintain or restore lynx habitat connectivity in and between LAUs, and in linkage areas.”<sup>187</sup> Both of these NRLMD directions offered the necessary scale. A scale for the goal of habitat connectivity should be provided in the PA and should specifically specify whether it is a female home range, within a mountain range, within this entire population, and/or connecting to Canada.

Additionally, the PA must ensure that the landscape remains connected and functional for lynx. Research suggests that:

[C]urrent forest management practices retain existing mature forest patches that provide year-round snowshoe hare habitat, and maintain connectivity of those patches within lynx habitat by avoiding further fragmentation. Land management practices should be carefully evaluated and planned at the *home range level*; long-term management plans should be developed that will favor maintaining and enhancing the connectivity and abundance of mature forest spatially and temporally within lynx habitat.<sup>188</sup>

We want to ensure that the landscape remains connected and functional for lynx, so we are interested in how the early successional seedling/sapling forests are discussed in Desired Condition FW-DC-TE&V-11.<sup>189</sup> They are discussed regarding patch size at some length. Meanwhile, later in this DC, it is noted twice (warm-moist and cool-moist/moderately dry biophysical settings) that “young forests with high horizontal cover of abundant tall shrubs/dense saplings are interspersed with older forests, to provide food and cover for snowshoe hares (the primary prey of Canada lynx) over long time frames, as forest and landscape conditions change.”<sup>190</sup> This does not indicate at what scale they would be “interspersed.” This should be detailed to include that young forests and older forests are interspersed within a female’s home range size and thus at a scale that’s congruent with lynx behavior and conservation. FW-DC-TE&V-23 does include that “[c]oniferous trees in the small to large size classes are interconnected to allow forest interior wildlife species, such as Canada lynx and marten, *to move within home ranges and across the landscape*,”<sup>191</sup> but we’d like to see that language in Desired Condition 11 as well. Additionally, we want to ensure that the definition of ‘young’ and ‘old’ and ‘small and large size classes’ in this context is sufficiently defined/understand so it will match the needs of hares and lynx.

## 3. Vegetation Standards

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<sup>186</sup> PA at 43.

<sup>187</sup> NRLMD Attachment 1 at 1.

<sup>188</sup> Megan K. Kosterman, *Correlates of Canada Lynx Reproductive Success in Northwestern Montana*, in THESES, DISSERTATIONS, PROFESSIONAL PAPERS, 21, (2014) (emphasis added).

<sup>189</sup> PA at 29.

<sup>190</sup> *Id.* at 31-32.

<sup>191</sup> *Id.* at 42 (emphasis added).

FW-OBJ-TE&V-01 details that “an estimated 1,400 to 2,500 acres per year would use the exceptions listed in Standard FW-STD-TE&V 05, and 300 to 460 acres per year would use the exceptions listed under FW-STD-TE&V 06.”<sup>192</sup> It must be ensured that these acres are spatially separated across years, so that certain areas are not managed year after year, thus potentially creating ‘sacrifice’ areas where too many acres have been treated in one region. There are limits to that extent within FW-STD-TE&V-03 and 04, (30%, and 15%, respectively)<sup>193</sup> yet the following limits may no longer be sufficient.

Female lynx home ranges that contain greater than 50% mature forest and approximately 10–15% young regenerating forest appear to be the optimal composition of forest structure types.<sup>194</sup> Home ranges with greater proportions of young forest (i.e. >15%) may compromise foraging habitat for lynx in the winter.<sup>195</sup> Thus, 30% within Standard 03 may already be too much for lynx conservation. In fact, Kosterman recommends the following:

Current management of US Forest Service lands that contain lynx habitat allows for no greater than 30% young forest within a predefined lynx analysis unit (Ruediger et al. 2000, USFS 2007). We suggest 10–15% composition of young regenerating forest may be more appropriate, and suggest that lesser amounts (<10%) and greater amounts (>15%) may negatively affect lynx reproductive output.<sup>196</sup>

We recommend that the DEIS creates an alternative that incorporates this information, at a minimum modifying FW-STDTE&V-03 to state:

03 Unless a broad scale assessment has been completed that substantiates different historic levels of stand initiation structural stages, limit disturbance in each lynx analysis unit (LAU) as follows: If more than 15 percent of the mapped lynx habitat in an LAU is currently in a stand initiation structural stage that does not yet provide winter snowshoe hare habitat, no additional habitat may be regenerated by vegetation management projects [formerly VEGS1].

Additionally, within the plan components in FW-DC-TE&V, the language “except in the Wildland Urban Interface” is used several times when discussing lynx habitat conservation measures. In the DEIS, the WUI must be mapped and overlaid with lynx habitat, and impacts to lynx habitat in the WUI must be analyzed, so that any impacts to lynx habitat in the WUI are understood. While formerly VEG S1 (proposed as FW-STDTE&V-03) does limit this to “Fuel treatment projects within the WUI that do not meet Standards FW-STD-TE&V 03-06 shall occur on no more than 6 percent (cumulatively) of lynx habitat on each administrative unit (a unit is a national forest),” it remains important to visually provide this information.

#### **4. Precommercial Thinning Exceptions within Vegetation Standards**

Several significant modifications have been proposed that would allow for increased thinning within lynx habitat. An additional exception to the former NRLMD VEG S5 standard has been added that in lynx habitat, precommercial thinning projects that reduce winter snowshoe hare habitat may only occur:

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<sup>192</sup> *Id.* at 43.

<sup>193</sup> *Id.*

<sup>194</sup> Kosterman at 21.

<sup>195</sup> *Id.*

<sup>196</sup> *Id.*



To promote development of mature multi-story snowshoe hare and lynx habitat by precommercially thinning a portion of stands in the cool, moist biophysical setting that have been regenerated by fire or timber harvest, using modified thinning techniques (as defined in the glossary) [added to VEG S5].<sup>197</sup>

Another significant exception was added to the former NRLMD VEG S6 that in mapped lynx habitat, vegetation management projects that reduce snowshoe hare habitat in mature multi-story forests may occur only:

For noncommercial treatments to increase resilience of whitebark pine in stands that contain phenotypically blister rust resistant trees, to make them more resilient and adaptable to stressors and likely future environments.<sup>198</sup>

And changing the ‘Note’ of that standard to now include the italicized words:

(NOTE: Timber harvest is allowed in areas that have potential to improve winter snowshoe hare habitat but presently have poorly developed understories that lack dense horizontal cover [e.g., uneven age or *even-aged management* systems could be used to create openings in coniferous forests *in the stem exclusion structural stage* where there is little understory so that new forage can grow]).<sup>199</sup>

Additionally, biomass removal for energy production targets the removal of dead trees, logging slash, and small-diameter trees and shrubs. Biomass removal is similar to fuels treatments in reducing cover and habitat for snowshoe hares.

The proposed action claims these changes are warranted because new information on Canada lynx has been published, including designation of critical habitat for Canada lynx, an updated version of the LCAS, and other recent science relevant to Canada lynx in northwest Montana. However, the types of changes the Flathead NF is proposing are not directly scientifically supported within those documents. The primary changes the Flathead NF is proposing involve modified precommercial thinning, and little is known about impacts to lynx and hare from such thinning. There is a substantial burden on the Flathead NF to demonstrate that there is a need to change conservation strategies for lynx.

#### **a. Impacts of PCT**

The best available science regarding PCT indicates that PCT has negative impacts to lynx. The LCAS says that “[p]recommercial thinning in Montana was shown to reduce snowshoe hare abundance in the short term (Griffin and Mills 2007). Forest plans were amended in 2008 to incorporate management direction that would conserve lynx, including direction that will minimize the impacts of thinning in lynx habitat.”<sup>200</sup> Some vegetation management practices, especially thinning in young dense regeneration and reducing overstory canopy in mature multi-story spruce-fir forests, have likely had detrimental effects to snowshoe hares and lynx in the past.

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<sup>197</sup> PA at 44.

<sup>198</sup> *Id.*

<sup>199</sup> *Id.* (emphasis added).

<sup>200</sup> LCAS at 63.

Reducing the density of sapling-sized conifers in young regenerating forests to increase the growth of certain selected trees promotes more homogeneous patches and reduces the amount and density of horizontal cover, which is needed to sustain snowshoe hares.<sup>201</sup> Precommercial thinning has been shown to reduce hare numbers by as much as 2- and 3-fold due to reduced densities of sapling and shrub stems and decreased availability of browse.<sup>202</sup> This emphasizes the problems with PCT. The LCAS also mentions a modified precommercial thinning:

There are anecdotal examples of precommercially thinned stands that subsequently "filled in" with understory trees. Some have suggested this could be a technique to extend the time that understory trees and low limbs provide the dense horizontal cover that constitutes snowshoe hare habitat. The duration between time of thinning and regrowth to a height providing winter snowshoe hare habitat would likely vary by tree species, each having different regenerative capacities that could be influenced by a variety of local factors (e.g., topographic relief, moisture, and mineral and organic content of the soil; Baumgartner et al. 1984, Koch 1996). Bull et al. (2005) reported that the slash and coarse woody debris remaining after precommercial thinning provided both forage and cover for snowshoe hares up to a year following treatment. However, Homyack et al. (2007) found that snowshoe hare densities were reduced following precommercial thinning for 1–11 years post-thinning. They further suggested that after precommercial thinning, the stands did not regain the structural complexity in the understory that would be needed to support snowshoe hare densities to the level that were present pre-treatment. At this time, no other data are available to quantify the re-establishment of snowshoe hare habitat and over what time period, or the response by snowshoe hares, as compared with sites that were not precommercially thinned, so this remains an unproven management technique. As an alternative to standard precommercial thinning (i.e., complete thinning resulting in a homogeneous patch), Griffin and Mills (2007) suggested retaining at least 20% of the patch in untreated clumps of about ¼ ha (½ ac), which would maintain hare habitat in the short term. However, Lewis et al. (2011) found that landscapes with patches of high-quality habitat surrounded by similar vegetation supported more hares than did more fragmented landscapes composed of high-quality patches in a matrix of poorer-quality habitat. Long-term studies of modified thinning methods are needed.<sup>203</sup>

The LCAS notes there is potential for modified PCT as a management tool for lynx habitat, but as yet it is "an unproven management technique" and requires long-term research.<sup>204</sup> Therefore, the PA is proposing a change that is not yet backed by peer-reviewed literature. The PA references anecdotal evidence regarding potentially positive impacts to lynx/hare habitat from historic management, yet until this is scientifically proven, it remains anecdotal and thus not necessarily acting as best available scientific information.

For example, Appendix B states that "field examination of areas on the Flathead NF burned in the Red Bench fire of 1988 have shown that precommercial thinning of extremely dense lodgepole pine stands prolongs the time that trees retain their lower live limbs and allows ingrowth of new shrubs and/or conifers."<sup>205</sup> Meanwhile, a study found that:

Snowshoe hares occur at low densities and are patchily distributed in Glacier National Park,

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<sup>201</sup> LCAS at 72.

<sup>202</sup> *Id.*

<sup>203</sup> *Id.* at 73.

<sup>204</sup> *Id.*

<sup>205</sup> PA Appendix B at B-14.

with highest densities found in regenerating lodgepole forests of the 1988 Red Bench Fire. Red Bench Fire sites were three times more likely to support densities  $\geq 0.3$  hares/ha than were randomly selected unburned sites. Given the well-known association between snowshoe hares and early-to mid-stage lodgepole pine regeneration (recently reviewed in Ellsworth and Reynolds 2006) we expect regenerating forests of the Red Bench Fire to continue supporting moderate hare densities and lynx over the next decade. Indeed, during our 3-year study, our field crew reported two lynx sightings, both in Red Bench Fire study sites.<sup>206</sup>

We ask that the DEIS examine this type of science and ensure that lynx and hare habitat are protected while considering the best scientific perspectives.

### **b. If PCT modifications are undertaken**

The reasoning the Flathead NF offers for incorporating modified PCT is described within the introduction chapter and Appendix B.<sup>207</sup> It is positive that the stated goals of the use of modified

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<sup>206</sup> Ellen Cheng et al., *EVALUATING THE PREY BASE FOR LYNX: SNOWSHOE HARE DISTRIBUTION AND ABUNDANCE IN GLACIER NATIONAL PARK*, (2011).

<sup>207</sup>The Flathead's landscape evaluation of the natural range of variation/variability (NRV) indicates large, frequent fires occur regularly in lynx habitat on the Flathead NF. In some places, post-fire tree densities greatly exceed levels needed provide hare habitat and these extremely high tree densities inhibit the development of mature multi-story hare and lynx habitat over the longterm. In other places, young forests could be pre-commercially thinned to promote growth of western larch that are resilient to fire in the overstory, while promoting growth of dense sub-alpine fir and Engelmann spruce in the understory. The proposed action would allow some forested stands in the stand initiation structural stage to be pre-commercially thinned using modified methods, to benefit winter snowshoe hare and lynx habitat by promoting biodiversity and a climate change adaptation strategy that is not currently part of the NLRMD. PA at 11.

In some forested stands within mapped lynx habitat that have been recently harvested or burned, precommercial thinning may occur to promote development of future mature multi-storied winter snowshoe hare habitat. The location and amount of pre-commercial thinning would be based upon an analysis of vegetation conditions at the LAU scale and would be guided by the best available scientific information. Vegetation management strategies could be used to promote mature multi-story hare habitat, to increase resilience to expected future climates, and to meet desired conditions with respect to fire behavior. Methods to create mature multi-story hare habitat include modified thinning techniques in young (seedling/sapling) stands which change the future forest structure and composition in ways that create winter snowshoe hare and lynx habitat. See PA Appendix B at B-13.

One example of a modified pre-commercial thinning prescription may occur in coniferous forest stands in the stand initiation structural stage, where there is Engelmann spruce and sub-alpine fir mixed with western larch and/or Douglas-fir. The taller trees (typically shade-intolerant species, such as western larch or Douglas-fir) may be thinned to a relatively wide spacing (i.e., 15 feet or more average spacing) and the shorter trees (typically shade-tolerant species, such as subalpine fir and Engelmann spruce) left unthinned. An example of a means to implement this prescription might be to require all trees below a certain height, such as six feet, to be retained, and thinning only the tree layer that is over six feet tall. This thinning method increases the growing space and sunlight received by all trees in the stand, allowing the subalpine fir and spruce to establish and flourish in lower canopy tree layers, while also developing an upper canopy of western larch and/or Douglas-fir with improved growth and vigor. This promotes development into mature multi-storied forest that can provide winter snowshoe hare and lynx habitat in the long-term. Field examinations of forest stands that were thinned using this method in the 1980s have shown that these stands developed a multi-storied stand structure in a shorter time frame than they would have without thinning. Lynx telemetry data on the Forest shows that stands thinned in the 1980s are being used by Canada lynx in winter. Since western larch and Douglas-fir are adapted to surviving fire if they reach a large enough size between wildfires (and sub-alpine fir or Engelmann spruce are not adapted to surviving fire), this strategy could help to maintain greater structural and species diversity over time, even if wildfires become more

PCT are to “benefit winter snowshoe hare and lynx habitat by promoting biodiversity and a climate change adaptation strategy,” “to promote development of future mature multi-storied winter snowshoe hare habitat,” “to change the future forest structure and composition in ways that create winter snowshoe hare and lynx habitat,” and “this promotes development into mature multi-storied forest that can provide winter snowshoe hare and lynx habitat in the long-term.”<sup>208</sup> However, as described above, the scientific literature does not at this point prove that these results come about from modified PCT.

Meanwhile, if these exceptions are carried forward and modified PCT occurs on lynx habitat in the Flathead NF, we recommend important requirements. It must be stated that these exceptions only occur such that the landscape remains connected and functional so there are not large “sacrifice” areas while treated areas are going through succession. It needs to be analyzed within a female home range context, using LAUs.

Since this is as yet an unproven technique, monitoring should be a requirement for any project that incorporates this technique. A standard should be included that requires the monitoring. It appears within “Appendix H – Monitoring Program” that to address whether management/PCT is “contributing to conservation” of lynx, the proposed potential indicator is the number of acres that have had various treatments.<sup>209</sup> However, if we don’t know the type of actual impact to lynx populations that occur with these treatments, simply counting the number of acres that were treated may not provide any real information. Close communication with the Rocky Mountain Research Station should occur to ensure monitoring is designed and performed in the most effective way possible. Monitoring should include the following:

- Snowshoe hare pellet counts performed pre-project to obtain relative abundance of hares, methodology following Mills et al. (2005).<sup>210</sup>
- Horizontal cover measured following standard cover board methods performed pre-project.
- Follow-up with the same snowshoe hare pellet count survey performed 5 years later to determine impacts and outcome from forest management.
- Follow up with the same horizontal cover using the same methodology performed 5 years later to determine changes in cover from forest management.

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frequent. If species such as western larch are able to grow to large sizes and survive repeated fires, they can provide key habitat for a wide variety of bird species. *Id.*

Another example of a modified thinning prescription may occur in areas of the forest where there have been recent large, intense wildfires covering thousands of contiguous acres. Large portions of these wildfire areas are now regenerating with 14,000 to 50,000 lodgepole pine and/or western larch stems per acre, creating extremely dense forest conditions. These extremely dense stands may initially provide snowshoe hare habitat, but very quickly grow into the stem exclusion structural stage, where they do not have lower live limbs providing forage for snowshoe hares. Extremely high tree densities also retard establishment and growth of an understory tree and/or shrub layer. Portions of these large burned areas could be pre-commercially or mechanically thinned using the “patch cut” method described by Bull and others in the LCAS. This would create a mosaic across the landscape, composed of patches of different tree sizes. Bull found that this pre-commercial thinning method resulted in snowshoe hare abundance that was significantly higher after thinning than before. In addition, field examination of areas on the Flathead NF burned in the Red Bench fire of 1988 have shown that precommercial thinning of extremely dense lodgepole pine stands prolongs the time that trees retain their lower live limbs and allows ingrowth of new shrubs and/or conifers. Pre-commercial thinning can help to maintain branches at the snow surface, prolonging the period that the stand provides winter snowshoe hare foraging habitat, as well as providing forage for a variety of other wildlife species such as moose, elk and deer. *Id.*

<sup>208</sup> See PA.

<sup>209</sup> See PA Appendix H.

<sup>210</sup> L.S. Mills et al., *Pellet count indices compares to mark-recapture estimates for evaluating snowshoe hare density*, JOURNAL OF WILDLIFE MANAGEMENT, 69(3):1053-1062, (2005).

## **5. Whitebark Pine**

The Flathead NF also proposed to modify the vegetation standard formerly known as VEG S6 to add an exception category to allow thinning for whitebark pine resilience on “8,100 to 19,200 acres for the purpose of sustaining or restoring whitebark pine in the ecosystem and contribute to achieving desired conditions for presence of this species across the landscape,” much of which would likely occur in lynx habitat.<sup>211</sup> However this is not mapped so we cannot determine the extent of this impact to lynx. Additionally, while the exception category in VEG S5 is somewhat described within Appendix B in terms of potential management approaches and possible actions, there is not a clear discussion of this exception and how it directly relates to lynx habitat.

## **6. OSVs**

Regarding over-snow-vehicles, the NRLMD language stated:

Guideline HU G11 Designated over-the-snow routes or designated play areas should not expand outside baseline areas of consistent snow compaction, unless designation serves to consolidate use and improve lynx habitat. This may be calculated on an LAU basis, or on a combination of immediately adjacent LAUs. This does not apply inside permitted ski area boundaries, to winter logging, to rerouting trails for public safety, to accessing private inholdings, or to access regulated by Guideline HU G12. Use the same analysis boundaries for all actions subject to this guideline.<sup>212</sup>

The proposed action now reads:

Guideline FW-GDL-REC-04 To maintain or improve high quality winter lynx habitat at a landscape scale, there should be no net increase in miles of designated over-the-snow routes or acres of designated play areas in mapped lynx habitat at a forestwide scale. Locations of designated routes or areas may be shifted across the forest in order to consolidate use, improve enforcement of closed routes or areas, or to open an area of lower quality lynx habitat in exchange for closing an equivalent acreage area of equal or higher quality lynx habitat.<sup>213</sup>

We wonder how “high quality lynx habitat” and “lower quality lynx habitat” are defined. It remains important that the amount of OSV use within LAUs is examined to determine levels of stressors to individual lynx in LAUs with higher amounts of OSV use. It is important to consider that as snow levels diminish with climate change, dispersed OSV use will become more concentrated in those snowy areas still remaining – exactly where lynx are trying to persist as well. Winter recreation will thus continually become a more serious threat to the persistence of the population over time.

## **7. Forest Roads**

Human access via Forest roads can increase the potential for mortality or injury of lynx captured incidentally in traps aimed at other species or through illegal shooting. The LCAS agrees that open

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<sup>211</sup> PA Appendix H at H-5.

<sup>212</sup> NRLMD Attachment 1 at 7.

<sup>213</sup> PA at 64.

roads can increase lynx vulnerability to hunting, trapping, and/or poaching. We request that the number of miles of roads and trails open to motorized use within mapped lynx habitat is analyzed in the DEIS. While FW-DC-IFS-13 “Infrastructure placement avoids permanent loss of Canada lynx habitat or critical habitat” addresses lynx habitat, it does not address this mortality concern from human activities via Forest road access.<sup>214</sup>

Additionally, the closed Bond and Hall Lake trail areas have since been designated as lynx critical habitat this motorized closure should continue to provide for secure lynx denning and foraging habitat.

## **8. Connectivity**

It appears in the proposed action that linkage areas specifically for lynx are no longer mapped and that connectivity is determined project by project. This is very concerning. Guideline HU G7 from the NRLMD specified that “[n]ew permanent roads should not be built on ridge-tops and saddles, or in areas identified as important for lynx habitat connectivity. New permanent roads and trails should be situated away from forested stringers.”<sup>215</sup> Proposed Action FW-DC-IFS-13 “Infrastructure placement avoids permanent loss of Canada lynx habitat or critical habitat” does address this to some degree, yet this new language adds to the vague guidance direction of the Proposed Action. At a minimum, show us directly what other guidelines/standards provide this same protection.<sup>216</sup>

The LCAS cites multiple scientific studies illustrating the importance of daily movements of lynx, and points out that lynx avoid large openings, either natural or man-made. Because lynx prefer to move through continuous forest, frequently use ridges, saddles and riparian areas, and have been observed to avoid large openings the revised Forest Plan must provide standards that protect these features. If a lynx is migrating across a large geographic area they may be more tolerant to a lack of cover as compared to a female lynx with kittens that is limited in the scope of her movements, as well as needs a high level of cover in order to be able to use the surrounding habitat. These significant differences in cover needs of lynx need to be analyzed in the EIS.

The EIS must also analyze the effects of WUI treatments on connectivity. While the WUI may, in most cases, be at a lower elevation the treatments in it may affect connectivity between important lynx habitat. For example, the Swan Valley presents challenges for lynx crossing between the Swan and Mission mountains. The previous checkerboard ownership with Plum Creek Timber Company and the Forest Service as well as parcels of private lands have led to a fragmented landscape. As the Forest Service pursues WUI projects in their lower elevation lands this can cumulatively be a barrier for lynx crossing the valley.

The PA must pay special attention to maintaining or recruiting high horizontal cover and mature stands in the corridors that extend from Canada through the Whitefish Range, along the western front of the Swan Range ending near Seeley Lake. It must also consider the second corridor along the east side of Glacier National Park to the Bob Marshall Wilderness Complex. Additionally, the PA must analyze and assess how past logging has affected the current status and distribution of the lynx. Without looking at this problem, the agency has no basis to propose any management strategy that includes expansive logging.

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<sup>214</sup> *Id.* at 66.

<sup>215</sup> NRLMD Attachment 1 at 7.

<sup>216</sup> PA at 66.

## 9. Climate change

Appendix D contains a crosswalk between plan components and drivers and stressors identified in the assessment.<sup>217</sup> A primary driver and stressor for lynx should be climate change/snowpack. However, as their habitat is not within high-elevation, they would not be addressed by the high-elevation SOPI plan components, and thus plan components do not directly address climate change/snowpack impacts for lynx.

## 10. Monitoring

Lynx monitoring should address the key ecosystem characteristics and ecological conditions for lynx through the following types of questions:

- Are plan components effectively providing for healthy lynx populations within and across the Forest? For healthy hare populations?
- Are plan components effectively providing for lynx movement within and across the Forest?
- Is there any indication that human disturbance is impacting the condition of lynx on the Forest?
- Are measurable changes in spring snow affecting lynx persistence in the plan area?
- What is the relationship between decreases in snow, demand for winter motorized recreation, and lynx persistence?
- Are plan components designed to provide for “little human disturbance” effectively providing for wolverine denning and security needs?

Within Table H-7, we wonder why there is an “or” within the monitoring question “To what extent is forest management contributing to the conservation of the Canada lynx and moving toward desired habitat conditions for mapped lynx habitat *or* critical habitat.”<sup>218</sup> It should read “and.” The potential indicators for addressing that monitoring question are generally useful. However, they should also be analyzed per LAU as well, as that is within the context of lynx biology and conservation. An additional indicator should be included regarding lynx vulnerability to mortality from increased human access: determine how many miles of roads and trails are open to motorized use within mapped lynx habitat – and this should be analyzed between alternatives in the DEIS. Additionally, we provided comments above regarding a monitoring need for effects from PCT on lynx/hare.

The indicator for the monitoring question, “MON-WL-09: To what extent is management of over-snow motorized use contributing to the conservation of the Canada lynx and moving toward desired habitat objectives conditions for mapped lynx habitat or critical habitat?” points to IND-WL-01.<sup>219</sup> This is confusing. It states:

IND-WL-01: a) Number of wildlife crossing structures in the North Fork, Middle Fork, or Swan Valley GAs; b) Acres open to over-snow vehicle use that is modeled high-quality lynx, grizzly bear denning, or wolverine maternal denning habitat. The following monitoring indicators from the vegetation, fire, aquatics, and RHCA sections also pertain to the grizzly

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<sup>217</sup> PA Appendix D at D-3.

<sup>218</sup> PA Appendix H at H-9-H-10.

<sup>219</sup> PA Appendix H at H-10.

bear: IND-VEG-01 a, b, and e; IND-FIRE-02; IND-WTR-03a; IND-IFS-02 d and e.<sup>220</sup>

Since it is an “a” and a “b,” what is the interaction between the two? Does it mean “a” could equally act as an indicator for the question of OSV impacts to lynx as “b” could? And if we’re examining the question of lynx impacts from OSV, it may not be appropriate to include grizzly bear denning or wolverine maternal denning habitat. These should likely be their own monitoring indicators, as lumping them doesn’t appear to provide the needed information. Additionally, this should also be measured within the LAU scale.

#### **11. These problems fail to meet the best scientific and commercial data standards.**

These examples illustrate the manifest problems with the PA and the ESA and NFMA’s best scientific and commercial data standards. The PA creates a scenario where it ultimately relies on nothing other than the PA itself, with no basis in science or prior FWS consultations. The PA states that new science and the LCAS render the 2007 information available as inadequate. Therefore, it would follow that given these changes in lynx information, the NRLMD (which was published in 2007) is also inadequate. However, rather than dismissing the 2007 NRLMD wholesale, the PA proposes to both modify and follow the NRLMD without any explanation as to the basis of either. This allows the Forest Service to simultaneously discredit 2007 NRLMD direction as being out-of-date, while reserving the opportunity to replace the 2007 direction seemingly at its own whim. As a result, the PA gives no basis as to why it chooses to directly modify certain provisions of the NRLMD, while ignoring others.

This structure is untenable and the PA must clarify its reliance upon the NRLMD. Rather than using the best available science, the PA is apparently using merely science of its own choosing, while some indefinite future “FWS Consultation.” The NRLMD is either the best available science or it is not. If the 2007 Direction is—as the PA claims—inadequate, the forest plan must be reformed until the best science is available. If however, the NRLMD is the best science available, the PA must reflect its direction precisely and accurately. The PA cannot arbitrarily pick and choose which NRLMD requirements are scientifically adequate and which are not without any explanation. If the PA does decide to modify NRLMD standards, it must explain its decision by citing which scientific information is taking precedence over the NRLMD.

Additionally, the PA must clarify its decision to ignore the LCAS and the numerous scientific authorities cited therein. Similar to the problems stated above regarding the PA’s inconsistent treatment of the NRLMD, ignoring recent FWS information such as the LCAS raises concerns regarding the PA’s reliance on the best available information.

#### **B. Reliance upon an indeterminate FWS consultation is inadequately vague and unreasonable.**

As mentioned above, the PA currently both accepts and dismisses the NRLMD as it awaits the indefinite FWS consultation. This undetermined schedule is unreasonable for two reasons. First, it fails ESA requirements, as the USFS must initiate consultation with the FWS as the PA is an agency action. Second, it unreasonably allows the PA to exist in a state of limbo by both dismissing prior information and awaiting supposed better information at some undefined future date. As a result, the PA inadequately relies on information regarding lynx critical habitat and therefore fails to

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<sup>220</sup> *Id.* at H-7.



properly consider adverse modification of critical habitat under the ESA. The Forest Service must seek out a FWS consultation, clarify the timeline with the FWS, and define when the consultation will occur. This indefinite timeline regarding the “consultation,” and the nebulous limbo cannot continue.

Under section 7(a)(2) of the ESA, the USFS must consult with the FWS to “insure that any action<sup>221</sup> authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined ... to be critical.”<sup>222</sup>

The ESA requires consultation regarding “any action” taken by an agency.<sup>223</sup> “There is no dispute that forest plans are considered ongoing agency actions for the purpose of determining whether they are subject to the ESA's consultation requirements.”<sup>224</sup> Agency actions also include the “adoption of a forest plan, the amendment or revision of a forest plan, and the proposal and approval of a site specific project in the forest.”<sup>225</sup>

The PA is an agency action under the ESA and the USFS must therefore consult with the FWS regarding lynx and lynx critical habitat. Currently, the PA makes no mention of a FWS consultation other than claiming “until consultation with the USFWS has occurred and a decision has been made on the Flathead NF Plan Revision, the Flathead NF would continue to follow NRLMD direction.”<sup>226</sup> However, the PA never explains what this consultation looks like, when it will occur, and how it will adjust the PA. More confusing still, the FWS has already supplied information regarding the lynx in the LCAS, but the PA fails to mention details of the plan outside its initial mentioning quoted above, and rarely if ever cites the numerous scientific references cited in the LCAS. Therefore, the Forest Service effectively has the freedom to arbitrarily dismiss post-2007 information, replace NRLMD direction with its own, and claim that it has no other choice until the FWS actually consults, whenever that may be. This is inadequately vague and the USFS must clarify in detail its consultation process with the FWS. This should include when it began consultation, the status of the consultation, the likely results, and how it will affect the PA.

Until the USFS initiates the consultation and includes these details, the PA is inadequately considering the best available information and is not considering the impacts of the PA on lynx critical habitat. As a result, the PA currently violates the ESA’s best information provision and creates adverse modification of critical habitat under the ESA. These problems must be fixed.

## C. Conclusion

These comments have raised two large structural concerns regarding the PA and its treatment of lynx and lynx critical habitat. First, the PA directly references the NRLMD without any regularity or order. This leaves the remaining PA direction without any scientific or policy basis and is exacerbated by the indefinite FWS timeline. The relationship between the NRLMD and the PA must be more closely related, more precisely defined, and more consistently applied. Specifically, the

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<sup>221</sup> “All activities or programs of any kind, authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States.” 50 C.F.R. § 402.02.

<sup>222</sup> 16 U.S.C. § 1536(a)(2).

<sup>223</sup> *Pac. Rivers Council v. Thomas*, 30 F.3d 1050, 1054 (9th Cir. 1994) (citing 16 U.S.C. § 1536(a)).

<sup>224</sup> *Ctr. for Biological Diversity v. U.S. Fish and Wildlife Serv.*, 623 F. Supp. 2d 1044, 1054 (N.D. Cal 2009). *See also*, *Pac. Rivers Council*, 30 F.3d at 1054.

<sup>225</sup> *Forest Guardians v. Forsgren*, 478 F.3d 1149, 1154 (10th Cir. 2007).

<sup>226</sup> PA at 11.

Flathead NF should address:

- Why and what is the need for change?
- Does a change still meet the original intent?
- How does the LCAS currently address this point? / Is there a scientific basis for the change?
- What are the effects of the change on lynx?

These comments have also raised specific concerns regarding the implications of certain provisions in the PA. There are questions regarding the PA's treatment of mapping, the need for scale, vegetation standards, precommercial thinning exceptions, whitebark pine, OSVs, forest roads, connectivity, climate change, and monitoring. The Flathead NF should address each concern and ensure that the lynx and lynx habitat are protected using the best science available.

Second, the PA is an agency action and the USFS must initiate consultation with the FWS. It is unreasonable for the USFS to propose a forest plan without first seeking FWS consultation and weaving that important information into the plan. Without initiating FWS consultation and detailing the process and its affects on the PA, the USFS will fail consider the best available science under the ESA the NFMA, and the fail to consider adverse modification of critical habitat under the ESA.

## **X. Wolverine**

While we appreciate the effort that was taken to propose wolverines as a Species of Public Interest and having high elevation areas as a special habitat feature, we believe wolverines need and will continue to need a designation as an SCC species on the Flathead NF to maintain its viability in the plan area. Below are our specific comments on wolverine that address the criteria for their inclusion as SCC, following the SCC determination criteria (Chapter 10, Sec 12.52 of the final directives).

### **A. Regulatory requirements**

The definition of a SCC is a species (not subject to any Endangered Species Act requirements) that is "known to occur in the plan area and for which the Regional Forester has determined that the best available scientific information indicates *substantial concern* about the species' capability to persist over the *long-term* in the *plan area*" (36 CFR 219.9). There is no disagreement that wolverines occur in the plan area; the remaining discussion will be about the likelihood of long-term persistence in the plan area. The italicized language above is addressed below.

#### **1. "Substantial concern"**

The BASI indicates wolverines suffer from current or predicted downward trends in habitat capability and subsequent impacts to population numbers or density, which warrants substantial concern about the species' persistence and its designation now as SCC. There is substantial concern for wolverine persistence into the future that is substantiated by the best available scientific information:

- Changes in the local environment caused by global climate change are likely to negatively affect wolverine habitat (Gonzales et al. 2008; Brodie and Post 2010; McKelvey et al. 2011; Peacock 2011; Inman et al. 2012; Johnston et al. 2012; Northern Rockies Adaptation Partnership 2014).
- Given the spatial needs of wolverines and the limited availability of suitable wolverine

habitat, this habitat loss and fragmentation will likely result in a loss of wolverine numbers that is greater than the overall loss of habitat area once a certain threshold of fragmentation occurs, raising significant concerns over the persistence of planning area populations (USFWS 2013).

- Dispersed recreational activities, especially winter motorized recreational activities, have the potential to negatively impact wolverine, disrupting and limiting use of natal denning areas (Carroll et al. 2001, Rowland et al. 2003, May et al. 2006, Copeland et al. 2007, Krebs et al. 2007). In fact, the Idaho wolverine conservation management plan involves promoting federal travel management that is compatible with conservation of secure wolverine denning areas (IDFG 2014).
- Human infrastructure can negatively impact wolverines, and wolverines are less likely to occur at sites with land management impacts such as logging, oil and gas exploration, and infrastructure development (Banci 1994, May et al. 2006, Squires et al. 2007, Krebs et al. 2007, Bowman et al. 2010, Fisher et al. 2013).
- Roads threaten wolverine populations by causing direct mortality and limiting dispersal (Inman et al. 2007a; Krebs et al. 2004) and roads have indirect impacts on wolverine habitat and on individuals' movements, as wolverines appear to avoid roads (Packila et al. 2007; Dawson et al. 2010; Squires et al. 2006; Austin 1998).

## **2. "Long-term" persistence**

The rationale for the preliminary determination should specify the time period over which it is being assessed. The time period is not necessarily the same as that required for listing under the Endangered Species Act. To be listed as "endangered" a species must currently be in danger of extinction, and to be listed as "threatened" it must be likely to become endangered in the "foreseeable future." The analysis used to determine whether a species should be listed is not determinative of "long-term persistence."

It should also be clear that "long-term" is longer than the period covered by the plan (expected to be 15 years, but in practice more like 30). This language in the Planning Rule was clearly intended to require plan components before a threat becomes imminent.

This region may act as a refugia against climate change. Yet even though wolverines may persist here longer than in other places, their isolation will increase the risks that persistence will not be long-term. The BASI predicts that wolverine habitat in the Glacier National Park/Bob Marshall Wilderness area will become more fragmented, and wolverine populations are likely to be negatively affected by changes in the spatial distribution of habitat patches as remaining habitat islands become progressively more isolated from each other within this century due to climate changes (McKelvey et al. 2011). This impending habitat and subsequent connectivity loss warrants substantial concern for wolverine persistence in the long-term.

## **3. "Plan area"**

A species may be identified as a SCC if it is at risk in a larger area of which the plan area is a part. If there are substantial concerns about the species persisting range-wide, or within a state, there are necessarily the same concerns about its persistence in any part of that area. Such concerns would lead to mandatory inclusion (see below). We believe this is the case for wolverine, and we have provided scientific information that demonstrates substantial concern for wolverine persistence.

### **B. Forest Service Handbook factors**

In the Handbook, there are several circumstances where including a species as a SCC should be considered. The first five address broader scale concerns for the species, while the last involves local conservation concern.

### **1. Presumptive inclusion based on broader scale concern**

These categories address concerns for persistence expressed by other reputable sources – the Federal government, state or tribal governments, and NatureServe. Substantial concern should be presumed by the Forest Service in all of these cases where the respective entity has reviewed the relevant science and reached a conclusion that there is substantial risk to the species. If the Forest Service does not designate the species as an SCC, the Forest Service must demonstrate that these findings are either erroneous or not applicable to the plan area.

Wolverines are a “species of concern” in Montana and a “species of greatest conservation need” in Idaho. They are ranked S-2 by NatureServe, a classification requiring consideration by the Handbook. These are strongly compelling classifications.

Even more compelling is the presence of wolverines on Forest Service’s own sensitive species list. Species are included on that list by a Regional Forester when (FSM 2670.5):

“population viability is a concern, as evidenced by:

- a. Significant current or predicted downward trends in population numbers or density.
- b. Significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution.”

According the Preamble to the planning rule, sensitive species “are similar to SCC.” To exclude a sensitive species, the regional forester must therefore demonstrate that the concern for viability is *not* sufficient to warrant identification as SCC for a plan area.

A final factor indicating concern for the long-term persistence of wolverines is their current status under the federal Endangered Species Act. There was a positive 90-day finding by the FWS regarding listing, followed by a proposal to list the species as threatened. The subsequent decision by the FWS (USFWS 2014) to withdraw the proposed listing does not resolve the question of whether wolverines meet the criteria for SCC. The fact that a species received a positive 90-day finding and proposed listing is strong evidence that, whether or not a species is actually listed, there is substantial concern about the species’ capability to persist in the plan area. A species that is close to the edge of being threatened with extinction makes one of the strongest cases for protection as a SCC.

Another factor to consider is whether a species is identified as a SCC in adjoining Forest Service plan areas. The status and needs of wolverine in adjacent plan areas must be considered, and treated consistently. The Regional Forester should make SCC determinations for all plan areas simultaneously, regardless of their revision schedule. Since wolverines occur on adjacent plan areas, the Regional Forester cannot ignore this factor by refusing to address the SCC question on those plan areas.

### **2. Plan area evaluation – “Species where valid available information indicates species are of local conservation concern”**

Even if a species is not at risk as whole, it may be considered a SCC by the Forest Service based on local information, and this should be considered whenever the public proposes a species as a SCC. The Handbook lists several factors to consider, and we address them each below.). This is what the Forest Service would need to address if it opts for an independent analysis of the threats to long-term persistence of wolverine.

### **3. “Significant threats, caused by stressors on and off the plan area”**

Present management is not relevant in making this determination because the current plan is being revised. Stressors “on” the plan area are those that are not prohibited by law or regulation and could adversely affect the species.

A major threat to wolverines is climate change. It is clearly a significant threat to wolverines from a stressor “off the plan area” (and no areas are “protected” from climate change). The Proposed Action in Appendix D notes that “Climate change – Snowpack” is a driver and stressor to wolverines and it attempts to note which plan components address this driver/stressor. This acknowledgement of climate change as a threat to wolverines and that the Forest Service is responsible for addressing it is an important step.

Winter recreation is a threat as well. Winter backcountry recreation is one of the fastest growing recreational activities in the U.S. and the northern Rockies (Cook and O’Laughlin 2008). Snowmobiling participants in Idaho doubled between 1995 and 2011 (IDPR 2012). Snowmobiles are now better able to reach areas previously inaccessible due to advanced technology with more powerful snowmobiles. Many of these places in the northern Rockies where winter recreation is experiencing growth spatially overlap suitable wolverine habitat and, more specifically, areas occupied by wolverines (Heinemeyer and Squires 2012; IDFG 2014). Researchers and natural resource managers have expressed concerns about effects of winter recreation on wolverine populations since the 1980s (Copeland 2009). On the Flathead NF, over-snow use is allowed in about 15 percent of wolverine habitat.<sup>227</sup>

Dispersed recreational activities, especially winter motorized recreational activities, have the potential to negatively impact wolverine, disrupting and limiting use of natal denning areas (Carroll et al. 2001, Rowland et al. 2003, May et al. 2006, Copeland et al. 2007, Krebs et al. 2007). Disturbance from foot and snowmobile traffic have been purported to cause maternal females to abandon or relocate dens (Myrberget 1968; Magoun and Copeland 1998; Inman et al. 2007b). Krebs et al. (2007) found that females tended to avoid areas with heli-skiing and backcountry skiing areas, and Copeland (1996) noted den abandonment after human disturbance. Peak winter recreation activity in central Idaho, measured as the number of recreationists passing infrared trail-use counters, occurs in February, coinciding with the time female wolverines are selecting and entering dens and giving birth (Heinemeyer et al. 2010).

Current winter recreation research in Idaho and Wyoming performed by Heinemeyer and Squires indicated that wolverines near human disturbance are likely changing their behavior and activity level in response to human activities (2013), raising substantial concern over the effect of winter recreation on the persistence of planning area populations. Wolverines in the study areas are apparently changing their activity level at time periods and days of higher recreational use, shifting their activity to avoid the most heavily used areas within their home ranges. As evidenced in numerous studies on different species (Creel et al. 2002), these behavioral changes can negatively

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<sup>227</sup> Flathead NF Assessment, Part 1, April 2014, at 184.

affect individuals' physiological stress levels and reproductive capacity. High disturbance areas may act as a population sink for wolverines.

As snowmobiling and backcountry skiing continue to grow in popularity, there is increasing concern that reproductive habitats may become limiting to populations due to human disturbance. This is a concern particular regarding reduced snowpack due to climate change. Recent warming has already led to substantial reductions in spring snow cover in the mountains of western North America (Mote et al. 2005; Pederson et al. 2010). Protection of reproductive denning habitat may be critical for the persistence of wolverine.

#### **4. "Declining trends in populations or habitat"**

There is no known population trend for wolverines and it cannot be assumed that wolverine populations are increasing, despite the FWS' arbitrary and capricious determination in their withdrawal decision. Only a short time ago in 2013, FWS noted in the proposed listing rule that, "No systematic population census exists over the entire current range of wolverines in the contiguous United States, so the current population level and trends are not known with certainty" (USFWS 2013, p7868). The FWS then decided in their final withdrawal decision that the wolverine population in the lower 48 is *currently* expanding, with no new evidence and no new published data. While it is clear that since the early 20th century wolverines have expanded from their near-extirpated levels, there is no evidence that there is a current increasing population trend.

FWS also unscientifically deemed there is proof that the population is currently expanding based on recent anecdotes of long-range dispersals of individual wolverines and/or newly recorded instances of individuals seen in areas where the species has not been recently documented. However, the historic record over the past several decades also featured such dispersal events, so the recent dispersals may not represent a significant new trend. These anecdotes do not prove a *currently* expanding population and range. A lead wolverine researcher, Jeff Copeland, recently stated that there is no scientific evidence to back up the claim that wolverine populations are at their highest levels and still growing.<sup>228</sup>

The key question in identifying SCCs is what is going to happen in the future. Past trends are only relevant to the extent that the future is likely to be like the past. In the case of wolverine we may be at the inflection point where the repopulating that resulted from regulating trapping may no longer be occurring and could possibly now become outweighed by the loss of snowpack and habitat due to climate disruption.

Climate change will negatively impact wolverine habitat (Gonzales et al. 2008; Brodie and Post 2010; McKelvey et al. 2011; Peacock 2011; Inman et al. 2012; Johnston et al. 2012; Northern Rockies Adaptation Partnership 2014). Recent warming has already led to substantial reductions in spring snow cover in the mountains of western North America (Mote et al. 2005; Pederson et al. 2010); the trend in wolverine habitat is therefore declining. Wolverine populations will respond by declining more quickly than suggested by remaining habitat, as they will be disproportionately affected by reduced connectivity among remaining habitat islands (McKelvey et al. 2011, USFWS 2013), and consequent effects on genetic diversity. Competition with human use of remaining snow will likely exacerbate the adverse effects.

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<sup>228</sup> [http://www.tetonvalleynews.net/page2/groups-sue-over-decision-not-to-list-wolverines-as-endangered/article\\_99ca2260-5bb9-11e4-a837-17e78c7599d1.html](http://www.tetonvalleynews.net/page2/groups-sue-over-decision-not-to-list-wolverines-as-endangered/article_99ca2260-5bb9-11e4-a837-17e78c7599d1.html)

The current rhetoric from the FWS withdrawal also suggests that wolverines may be able to adapt to climate change, inferring they can thrive without snow. The notion of wolverines adapting to major changes from climate disruption, unfortunately, is untenable - the best available scientific information does not indicate that wolverines can persist without snow.

In the contiguous United States, wolverines are wholly adapted to cold and snowy conditions and have existed in that ecological niche for thousands of years. There is no evidence that wolverines can den and persist in areas distant from extensive areas characterized by spring snow. The correlation between spring snow and female reproductive dens is extremely tight: the most comprehensive study (Copeland et al. 2010) found that every one of the 562 verified wolverine den sites in North America and Scandinavia occurred in snow.

## **5. “Restricted ranges”**

Wolverine habitat in the northern Rockies is restricted and disjunct (Aubry et al. 2007, Inman et al. 2013a). This impacts wolverine genetic health (Kyle and Strobeck 2001, Cegelski et al. 2006, Schwartz et al. 2009). Wolverines in the lower 48 have low genetic diversity, high genetic drift, and low connectivity with Canadian populations (Schwartz et al. 2007).

Meanwhile, this criterion of restricted range cannot be offset by noting that much of their habitat is within “protected” Forest Service land. The status of management has no bearing on this criterion.

## **6. “Low population numbers or restricted habitat within the plan area”**

Wolverines are rare, with the best current estimate of wolverine abundance in the northern Rockies is approximately 300 individuals (Inman et al. 2013a), while estimates for “effective” population size average 35 individuals (credible limits = 28–52) for Idaho, Montana, and Wyoming (Schwartz et al. 2009). Wolverine habitat is characterized by areas that maintain persistent spring snow (Copeland et al. 2010) and is associated with high-elevation montane areas with alpine climatic conditions and isolation from human activity (Hornocker and Hash 1981, Aubry et al. 2007; Krebs et al. 2007). They use avalanche chute habitats in all seasons, likely related to avalanche-killed large mammals in winter and availability of marmots and ground squirrels in summer (Krebs et al. 2007).

Primary habitat for wolverines in the Flathead NF is estimated to decrease by 11% by 2050 (Weaver 2014).

## **C. Exclusion criteria**

The Handbook also includes criteria that could be used to conclude that there is not a substantial concern about persistence, and a species would therefore not be a SCC.

### **1. “If the species is secure and its continued long-term persistence in the plan area is not at risk based on knowledge of its abundance, distribution, lack of threats to persistence, trends in habitat, or responses to management.”**

This criterion of “not at risk” allows for no uncertainty. The case that must be made for a species to be secure is that there are no threats to the species. We have argued above that this is not the case, and that the BASI indicates substantial concern. We could provide additional materials if needed.

**2. “If there is insufficient scientific information available to conclude there is a substantial concern about the species’ capability to persist in the plan area over the long term.”**

The correct way to address this criterion would be to describe the information that evidences concern (see above, and our October 15 letter) and to explain why this is insufficient. We urge that the Forest Service does not simply emphasize that wolverine habitat is mostly within “protected lands”, or that the Forest Service is not currently affecting it, when “currently” is defined by the existing plan and that plan is being changed, or simply by recent exercise of managers’ discretion that could be changed at any time.

Additionally, it is important to note that while “secure” habitat provided by wilderness areas and roadless areas are highly important to wolverines and in fact more Forest Service lands should be protected in such a way, such areas are not secure from the effects of climate change. There thus remains the substantial concern about the species in the plan area. Limited plan area habitat may not be used as a reason to exclude a species as a SCC if it is known to occur there. The planning rule instead recognizes a different viability requirement for SCC in those situations (219.9(b)(2)).

**D. Adequate regulatory mechanisms**

It should go without saying that one of the reasons for the diversity and viability requirements is to reduce the likelihood of species extinction by implementing mitigation measures before that likelihood becomes foreseeable (which would require listing as threatened). It obviously follows from the requirements to conserve and recover listed and proposed species so that they are no longer subject to ESA that species should be included as SCC where future listing under ESA is possible. Listing is imminently possible for wolverine as a result of pending litigation, or soon thereafter as a result of expected declines in habitat and populations.

In its original proposal to list wolverines as threatened the USFWS alluded to NFMA and individual national forests identifying “species of concern that are significant to each forest’s biodiversity” (p. 7882). While it found that national forest plans are currently adequate as regulatory mechanisms, failure to recognize wolverine as a SCC and include appropriate plan components to meet requirements for viability could require reconsideration of that conclusion.

**E. Comments on the Proposed Action Regarding Wolverines**

**1. Plan Components**

The following table indicates the ecosystem characteristics and ecological conditions important for wolverines and notes where the forest plan may have an effect. The PA includes several plan components that partially address these characteristics and conditions but which require improvement to adequately account for wolverine conservation needs.

<b>Key characteristics (habitat)</b>	<b>Potential adverse effects from FS management</b>	<b>Ways to avoid adverse effects</b>
Cold and persistent spring snow	Impacts to species from human disturbance	Can make more secure from human disturbance
Large tracts of land	Fragmentation, reduction of integrity of large tracts including	Prohibit fragmentation and maintain integrity



	all existing unroaded areas and improving roadless characteristics elsewhere	of large tracts
High elevation, steep, remote habitat; mix of tree cover, alpine meadow, boulders, avalanche chutes; subalpine cirques	Impacts to species from human disturbance	Can make more secure from human disturbance
Landscape structure/connectivity	Fragmentation	Identify and maintain connectivity and linkage areas
<b>Ecological conditions (denning, security and foraging)</b>	<b>Potential adverse effects from FS management</b>	<b>Ways to avoid adverse effects</b>
Fewer roads and infrastructure	Fragmentation of habitat, loss of security, increased mortality	Limit and/or remove roads and infrastructure
Less human activity including: disturbance from over-snow vehicles, trapping (including incidental)	Loss of security, increased mortality	Limit human activity
Sufficient amount of ungulate carcasses	Reduced habitat and populations	Improve ungulate habitat and populations and limit high elevation grazing

The most critical plan components for wolverines must address the intersection between human disturbance and denning security. This is not only a question of where, but how, and requires the establishment of thresholds of disturbance, recognizing the degree of uncertainty involved in the relationship between disturbance and wolverine denning security.

As snow levels diminish, dispersed recreational activities will become more concentrated in those snowy areas still remaining – exactly where wolverines are trying to persist as well. Winter recreation will thus continually become a more serious threat to the persistence of planning area populations over time. To address this driver/stressor, a plan component similar to that of lynx guideline (FW-GDL-REC-04)<sup>229</sup> should be developed for wolverine maternal denning habitat.

The PA plan components related to wolverines as a SOPI include a desired condition (FW-DC-SOPI-WL-01) that then has guidelines (FW-GL-SOPI-WL- 02, 03)<sup>230</sup> that are a decent start to

<sup>229</sup> **FW-GDL-REC-04** To maintain or improve high quality winter lynx habitat at a landscape scale, there should be no net increase in miles of designated over-the-snow routes or acres of designated play areas in mapped lynx habitat at a forestwide scale. Locations of designated routes or areas may be shifted across the forest in order to consolidate use, improve enforcement of closed routes or areas, or to open an area of lower quality lynx habitat in exchange for closing an equivalent acreage area of equal or higher quality lynx habitat.

<sup>230</sup> **FW-DC-SOPI-WL-01** Key ecosystem characteristics support wildlife SOPI and are resilient and adaptable to stressors and likely future environments. Special habitat features such as caves, boulder fields, persistent snow fields, and waterfalls provide habitat for associated species (see table 15). Refer to appendix A for the full list of SOPI species and associated habitats.

**FW-GL-SOPI-WL- 02** Activities that may increase human disturbance in denning, nesting, or seasonal concentration areas during the time periods listed in table 17 should be assessed and managed on a site-specific basis to limit population stressors of wildlife species listed in table 17.

acknowledging the sensitivity of wolverine denning.

However, managing ‘on a site-specific basic’ will not provide sufficient clarity nor consistency, and ‘to limit population stressors’ will almost certainly mean there will be no action taken, since it is difficult to ‘prove’ that a specific activity is stressing the entire population of wolverines. Certainly there is concern about impacts to populations from any loss of a reproductive female, since the effective population size of wolverines in the lower 48 is incredibly low (Schwartz et al. 2009). As written, FW-GL-SOPI-WL- 02 is unlikely to lead to any adjustment in management for the benefit of wolverines.

Additionally, Table 16/17 notes the dates of sensitivity to be mid-February to mid-May. We recommend this be switched to beginning of February, as females typically give birth in February to mid- March (Magoun and Copeland 1998, Inman et al. 2012).

The guidelines FW-GL-SOPI-WL- 02, 03 note that the area that maternal denning habitat (Table 16/17) should be assessed and managed for wolverines – this is a good approach. However, by using “maternal denning habitat in areas mapped with persistent spring snow 5 to 7 years out of 7,” this may be confusing (to those not specifically familiar with the Copeland et al. model) and it is not represented in any maps.

There appear to be a variety of metrics for wolverine habitat used in the Assessment and the PA (“persistent spring snow,” “wolverine maternal denning habitat,” “Acres of key conservation areas for wolverines’, etc). It would be useful for this and other Forest Plan revisions in the Region to follow one methodology or model to clearly define and map maternal denning habitat and primary habitat. The Copeland et al. (2010) model using persistent spring snow, the Inman et al. (2013) model using several habitat factors, or the Weaver (2014) methodology that combines those two verified wolverine models are all valid approaches. In the effects analysis of the EIS and within the final plan, it will be important to have consistency and well-explained reasoning for selecting the model used for measuring wolverine habitat.

While maternal denning habitat will be potentially better protected with the GL 02 and 03, a standard that specifically includes temporary closure of areas that have documented wolverine occurrence/denning should be included in the EIS for those instances when such information is available.

We are pleased to see that the proposed action does not allow snowmobiling within recommended Wilderness areas, as this would alter the social characteristics of these areas and create an expectation that this activity is acceptable or even encouraged within them. However, we are concerned that there is still significant overlap between wolverine habitat and areas open to snowmobile use. We also have a concern we have with OSV management is enforcement. We encourage the Flathead NF to increase enforcement of winter recreation management areas and issue more citations for OSV violations. This is of particular concern with new OSV technologies such as motorized snow bikes that allow further infringement into (previously) difficult terrain.

To reduce wolverine mortality, areas where wolverines have been trapped (directly or incidentally) should be closed to winter motorized use as MA1 or 5a. We request that the number of miles of

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**FW-GL-SOPI-WL- 03** Special habitat features identified in table 15 should be evaluated for presence of wildlife and invertebrate species prior to activities that would have substantial effects (e.g. blasting, gravel crushing) and measures to avoid or mitigate effects should be included as needed, based upon site specific analysis.

roads and trails open to motorized use within wolverine primary habitat should be analyzed between alternatives in the DEIS.

Wolverines are limited to some degree to available food resources in the form of ungulate carcasses, particularly bighorn sheep and mountain goats. The forest plan should ensure that mountain goat and bighorn sheep levels are viable.

## **2. Appendix D**

In Appendix D, Table D-2 notes that “Climate change – Snowpack” is a driver and stressor to wolverines and that FW-DC-SOPI-WL-01 and FW-GL-SOPI-WL- 02, 03 it address this driver/stressor. Yet they offer such vagueness and lack of defined direction of what constitutes ‘assessed and managed,’ ‘population stressors,’ ‘substantial effects’ and so on, so they likely do not provide sufficiently explicit conservation measures that would actually address this issue for wolverines.

Another driver and stressor for wolverines in Proposed Action Appendix D Table D-2 relevant to wolverines is “Climate Change – Avalanches.” While this is an important habitat feature for wolverines, the plan components listed (MA-1a-DC-03 and MA-1b-DC-02)<sup>231</sup> are essentially useless in protecting this habitat feature. Additionally, since they are only within this MA and not others, these cannot be applied beyond this MA and that is problematic to us. If avalanche chutes need to be protected from management activities, there should be a plan component that directly does so.

Another driver and stressor in Proposed Action Appendix D Table D-2 that includes wolverines is “Human Land Use and Development – Cities, Towns, Developments, and Broad Expanses of Unforested Lands.” This includes a list of several plan components that address the driver/stressor. Several address mitigating impacts from mineral development to grizzly bears which could have some indirect benefit to wolverines. Several of the listed plan components are desired conditions that mention areas that ‘provide habitat connectivity for wide-ranging species’ which is a desirable condition indeed but it is very vague. Plan components that provide for wolverine movement should be spatially explicit and limit activities in connectivity and linkage areas that may inhibit movement.

Another driver/stressor should be added to Table D-2 that addresses the threat of winter recreation/OSVs to wolverines and other species. This could be addressed by the plan component recommended above.

## **3. Geographic Area Changes**

As noted above, the proposed recommended wilderness and non-motorized areas are insufficient for many reasons, including the protection of wolverine. There are several areas we request changes for improved wolverine protections. Please see Weaver April 23 2015 comments for specific mapped locations of these recommendations.

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<sup>231</sup> **MA-1a-DC-03** Natural ecological processes and disturbance (e.g., wildfire, insects, and disease) are the primary forces affecting the composition, structure, and pattern of vegetation. Wilderness areas provide opportunities for visitors to experience natural ecological processes and disturbances with limited amount of human influence.

**MA-1b-DC-02** Recommended wilderness areas are characterized by a natural environment where ecological processes such as natural succession, fire, insects, and disease function with limited amount of human influence. Impacts from visitation do not detract from the natural setting.

Within the North Fork Flathead Geographic Area, 1,220 acres in the Chain Lakes basin near Nasukoin Mountain should be changed to Recommended Wilderness (1b) or Backcountry Non-motorized Year-Round (5a) rather than Backcountry snowmobiling (5c). This area has high suitability for denning by wolverines.

In the Middle Fork Flathead Geographic Area, the proposed plan does not offer sufficient protections in the Slipper Bill area/Puzzle WIA (4,800 acres). This should be either 1b or 5a, as it is all high-value maternal denning habitat for wolverine. In the headerwater basins of Paola, Dickey, and South Fork Dickey Creek, 3,725 acres should be 1b. It is mostly all high-value wolverine maternal denning habitat.

The Hungry Horse Geographic Area contains important areas for wolverines that would be concerning if not closed off from OSVs into either 1b or 5a. Almost 20,000 acres of the greater Jewel Basin area (headwaters of Quintonkon Creek and Posey Creek, Wheeler and Forest Creek, Wildcat and Wounded Buck Creek) should be 1b or 5a. Additionally, almost 9,000 acres along the Swan Crest to encompass the headwaters of Conner Creek Branch Creek and Ball Creek should be included as 5a. This region south of Jewel Basin open to motorized users in the PA is highly concerning as it is likely going to be an area of high conflict with wildlife use such as wolverines.

In the South Fork Flathead Geographic Area, the Bunker Creek area (26,470 acres) would benefit from inclusion as 1b, and the road in lower Bunker Creek should be de-commissioned from junction with spur road to Gorge Creek (present location of gate) up to forks of Bunker Creek and Middle Fork Creek (approximately 5.8 miles).

In the Swan Valley Geographic Area, to protect wolverine habitat, 5,800 acres along the Swan Crest from Con Kelly Mountain north to Hall Lake should be 5a, as well as acres along the Swan Crest up to Thunderbolt Mountain.

Late season (after March 31) snowmobile use is allowed under the PA in a handful of areas across the forest. For wildlife impacts (grizzly bear, wolverine denning, lynx gestation), late-season snowmobile use should be ended within the Challenge/Skyland, Sixmile and Lost Johnny areas.

#### **4. Monitoring**

A wolverine monitoring program should be established stemming from the types of plan components suggested above. The monitoring program for wolverines should evaluate whether components need to change to better conserve the planning area population. Importantly, wolverine monitoring should test “relevant assumptions” (219.12) associated with the relationship between the forest plan and wolverine persistence, including assumptions and uncertainty regarding management impacts, particularly motorized recreation, on wolverine persistence. Wolverine monitoring in the plan monitoring program should be coordinated and integrated with the development of a broad-scale monitoring program for wolverines and other forest carnivores (see 219.12(b)), and should also be developed and implemented with key stakeholders, including WildEarth Guardians (see 219.12(c)(3)), which was included in Appendix B as a potential management approach and possible action.<sup>232</sup> Wolverines should also be considered as a focal species representing the ecological integrity of alpine ecosystems.

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<sup>232</sup> Cooperate in interagency, non-government organizations, and citizen science survey efforts for species associated with alpine-subalpine habitats (e.g., wolverine, White-tailed ptarmigan, Graycrowned rosy finch, pika, and hoary marmot) that may be susceptible to effects of climate change. (p. B-15)

Wolverine monitoring should address the key ecosystem characteristics and ecological conditions described above, for example, through the following types of questions:

- Are measurable changes in spring snow affecting wolverine persistence in the plan area?
- What is the relationship between decreases in spring snow, demand for winter motorized recreation, and wolverine persistence?
- Are plan components effectively providing for wolverine movement within and across the Forest?
- Is there any indication that human disturbance is impacting the condition of wolverines on the Forest?
- Are plan components designed to provide for “little human disturbance” effectively providing for wolverine denning and security needs?

Within the PA, the monitoring Appendix H essentially gives some suggestions for monitoring but says it does not include everything – thus making it rather tricky to understand what might or might not be monitored. It then notes that wildlife can in many ways be monitored via vegetation, and that the biophysical settings with key ecosystem characteristics can be monitored, as well as some key characteristics of the human environment. However, it does not appear that human activities would be included in terms of wildlife monitoring (via various proxies presumably offered in the biophysical settings). That is of concern for wolverines. To in part address this issue, within Table H-1, plan component FS-DC-IFS-06<sup>233</sup> should have a potential indicator within IND-IFS-03 that includes a metric examining the number/type of conflicts of trails with wildlife as ‘other resources’.

It is positive that this section includes the potential for monitoring persistent spring snow, in part for wolverine, but it leaves it vague in saying that “changes in the distribution of persistent spring snow on the Flathead NF would be monitored if and when the existing data is updated” ...which is a confusing and vague statement. Both the agency and the public need better clarity.

## **XI. Conclusion**

Our comments address nine core topics that we expect the Flathead NF to address in its forest plan by developing meaningful plan components, including standards and guidelines. We provided information in this letter related to these nine topics for the agency to utilize as it finalizes its need for change statements, formulates a range of reasonable alternatives and conducts its NEPA impacts analysis. Further, utilizing the information in this letter will help the agency satisfy the substantive provisions in the rule at 219.8 through 219.10 related to ecological integrity and species diversity.

The forest plan revision process presents an opportunity to create a vision and guiding framework that will protect wildlands, wildlife, water and other natural resources that are currently intact but also restore those values that have suffered from a history of intensive use.

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<sup>233</sup> **FS-DC-IFS-06:** The Forests’ trail system provides a variety of motorized and non-motorized recreational opportunities during summer and winter that is distributed across the Forest. Trails access destinations, provide for loop opportunities that also connect to a larger trail system, provide linkage from local communities to the Forest, and are compatible with other resources.

We look forward to continued participation in this process. Please keep me apprised of any developments and as any further reports or analysis are released related to either the Forest Plan Revision or Grizzly Bear Amendments. If you have any questions regarding these comments, please do not hesitate to contact me.

Respectfully,



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### **Attachments and References**

#### Attachments:

- Literature Review on the Impacts of Roads.
- Comments on the NCDE Draft Conservation Strategy by the Natural Resources Defenses Council, dated 7/30/13.
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