July 5, 2016

Submitted online to: colvilleplanrevision@fs.fed.us

Colville National Forest Plan Revision Team
765 South Main Street
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Re: Colville National Forest Plan Revision #45826

WildEarth Guardians respectfully submits these comments to the U.S. Forest Service on the Draft Environmental Impact Statement (DEIS) analyzing the Colville National Forest's Proposed Revised Land Management Plan (LMP). WildEarth Guardians is a non-profit organization with offices in Oregon, Montana and six other states. Guardians has more than 160,000 members and online supporters across the United States and the world. WildEarth Guardians works to protect and restore wildlife, wild places, wild rivers, and the health of the American West. Toward this end, Guardians and its members work to protect the natural and cultural features of landscapes within national forests, including wildlife.

Our main concerns with the DEIS and LMP break down to the following:

(1) Minimum Road System
(2) Minimization Criteria for Trails and Areas
(3) Winter Travel Management
(4) Wildlife

We hope that early input will help the Forest Service shape its analysis in the DEIS and proposal for the revised LMP, with particular attention to the larger-scale effects on watersheds, vegetation, soils, wildlife, and other forest uses. We look forward to working closely with the Forest Service to develop a manageable LMP that supports an ecologically sustainable landscape across the Colville's 1.1 million acres.

1. **This Forest Plan should address the agency's duties to identify and implement a minimum road system.**

To address the Forest Service's unsustainable and deteriorating road system, "subpart A" of the Travel Management Rule was designed to shrink the size of the system. 66 Fed. Reg. 3206 (Jan. 12, 2001); 36 C.F.R. part 212. The goal of subpart A is "to maintain an appropriately sized and environmentally sustainable road system that is responsive to ecological, economic, and social

concerns."[1] Subpart A requires each forest to conduct "a science-based roads analysis," generally referred to as a travel analysis report. 36 C.F.R. § 212.5(b)(1). It also requires each forest to identify unneeded roads to prioritize for decommissioning or to be considered for other uses. 36 C.F.R. § 212.5(b)(2). Based on the travel analysis report, each forest must "identify the minimum road system needed for safe and efficient travel and for administration, utilization, and protection of National Forest System lands." *Id.* § 212.5(b)(1).

Subpart A defines the minimum road system as the system, determined by the Forest Service, as needed to:

- Meet resource and other management objectives adopted in the relevant land and resource management plan,
- Meet applicable statutory and regulatory requirements,
- Reflect long-term funding expectations, and
- Ensure that the identified system minimizes adverse environmental impacts associated with road construction, reconstruction, decommissioning, and maintenance.

Id. (hereafter, minimum road system factors).

Several directive memoranda issued by the Forest Service's Washington Office outline how the agency expects forests to comply with subpart A.[2] First, all forests were required to submit their travel analysis reports to the Forest Service's Washington Office by September 30, 2015. *See* 2013 Weldon Memo. Next, forests must consider applicable travel analysis reports and begin to determine the minimum road system for site-specific projects of an appropriate geographic that are subject to analysis under NEPA. *See* 2012 Weldon Memo at 2 (directing forests to "analyze the proposed action and alternatives in terms of whether, per 36 CFR 212.5(b)(1), the resulting [road] system is needed"). By analyzing whether these projects are consistent with the relevant travel analysis report, and considering the minimum road system factors under 36 CFR 212.5(b)(1), the Forest Service expects each forest to identify the minimum road system for particular forest segments. *Id.* ("The resulting decision [in a site-specific project] identifies the MRS and unneeded roads for each subwatershed or larger scale").

Subpart A requires forests to do more than just identify the minimum road system: it directs forests to implement that minimum system through decommissioning. In a 2011 report to Congress, Secretary Vilsack confirmed the need to actually implement the minimum road system. *See* Feb. 18, 2011 Letter from Secretary Thomas Vilsack to Subcommittee on Interior, Environment, and Related Agencies (stating that "Subpart A of the Travel Management Rule requires the responsible official to identify the minimum road system . . . including identification *and decommissioning* of unneeded roads.") (emphasis added). The letter continues: "In identifying the minimum road system,

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[1] Memorandum from Leslie Weldon to Regional Foresters *et al.* on Travel Management, Implementation of 36 CFR, Part 212, Subpart A (Mar. 29, 2012) (hereafter, 2012 Weldon Memo), page 1 ("The national forest road system of the future must continue to provide needed access for recreation and resource management, as well as support watershed restoration and resource protection to sustain healthy ecosystems."). *See also* 66 Fed. Reg. 3206, 3207 (Jan. 12, 2001) (noting the 2001 rules "signal the shift away from development and construction of new roads to maintaining needed roads and decommissioning unneeded roads."); Memorandum from Leslie Weldon, USFS Forest Service Washington Office, to Regional Foresters *et al.* (Dec. 17, 2013) (hereafter, 2013 Weldon Memo) (Supplement to 2012 Weldon Memo) ("Through the process in the 2012

[2] 2012 Weldon Memo; 2013 Weldon Memo; Memorandum from Leslie Weldon, USFS Forest Service Washington Office, to Regional Foresters *et al.* (Nov. 7, 2011) (hereafter, 2011 Weldon Memo) (Supplement to 2012 Weldon Memo).

responsible officials must identify the NFS roads on lands under Forest Service jurisdiction that are no longer needed to meet forest resource management objectives and *that therefore should be decommissioned or considered for other uses*, such as for trails." *Id. See also* 36 C.F.R. § 212.5(b)(2) (same). Subpart A instructs forests to "give priority to decommissioning those unneeded roads that pose the greatest risk to public safety or to environmental degradation." 36 C.F.R. § 212.5(b)(2).

With forest plans determining the framework for integrated resource management, the plan revision is precisely the place to ensure that the requirements of subpart A are satisfied and to establish direction for achieving a sustainable minimum road system. Indeed, the substantive ecological integrity and ecological and fiscal sustainability provisions of the 2012 planning rule complement and reinforce the requirements of subpart A.

The Colville National Forest contains over 4,000 miles of system roads. LMP at 6. Desired condition FW-DC-AS-01 for the "access system" states:

> The system is maintained commensurate with maintenance levels, levels of use, and available funding. Roads, trails, and areas that are open to motor vehicle use are designated through the motor vehicle use map. The size of the access system is such that each road and trail can be maintained to its assigned maintenance level and each bridge meets structural standards.

LMP at 61. We strongly support the agency's focus on achieving a road system of a *size* that can be maintained, considering funding levels.

The Forest Service must, however, set more ambitious schedules for accomplishing road improvements. For example, forest plans must include standards and guidelines that maintain or restore healthy aquatic and terrestrial ecosystems, watersheds, and riparian areas, and air, water, and soil quality, taking into account climate change and other stressors. 36 C.F.R. § 219.8(a)(1)-(3). Plans also must implement national best management practices (BMPs) for water quality; ensure social and economic sustainability, including sustainable recreation and access and opportunities to connect people with nature; and provide for "[a]ppropriate placement and sustainable management of infrastructure." 36 C.F.R. §§ 219.8(a)(4), 219.8(b), 219.10(a)(3). As documented in a literature review by The Wilderness Society[3], the adverse environmental and fiscal impacts associated with existing transportation infrastructure (e.g., erosion, compaction, sedimentation and impairment of water quality, fragmentation of wildlife habitat, interference with feeding, breeding, and nesting, spread of invasive species) directly implicate these substantive requirements.

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, relevant legal requirements, and best available science.[4] Where applicable, the recommended plan components also must incorporate information from the forest assessment and other relevant sources of information.

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[3] The Wilderness Society, Transportation Infrastructure and Access on National Forests and Grasslands: A Literature Review (May 2014) (hereafter, 2014 Literature Review) (Attachment A).

[4] Pursuant to the 2012 Planning Rule, the Forest Service must use the best available science. 36 C.F.R. § 219.3 ("use the best available scientific information to inform the planning process"). The 2014 Literature Review summarizes best available science related to road infrastructure and impacts.

Remove unneeded roads to improve habitat connectivity

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. Unauthorized routes catalogue unlawful behavior. Ignoring these roads will not make them disappear. Temporary routes are far from temporary, but rather must be closed within 10 years of completion of a project. 16 U.S.C. 1608(a). During the project, and for an addition of at least 10 years after completion of the project, temporary roads have very real impacts on the forest. Unauthorized and temporary roads detract from the purpose of subpart A of the agency's own rules, to "identify the minimum road system needed for safe and efficient travel and for administration, utilization, and protection of the National Forest System lands." 36 C.F.R. § 212.5(b). They also detract from the forest's efforts to achieve road density standards. In addition, stored roads remain on the landscape as well, with continuing adverse impacts.

The continued presence of unauthorized routes, temporary roads, and stored roads on the landscape allows for harassment of wildlife, littering, fires, invasive plant distribution, and harm to water quality and aquatic life. It also results in cumulative impacts on the landscape when added to the impacts from system roads.

The forest plan revision should envision the removal of all unneeded roads, both system and non-system. Reconnecting islands of unroaded forestlands is one of the most effective actions land managers can take to enhance forests' ability to adapt to climate change. 2014 Literature Review at 9 & 11. Removing unneeded roads also improves forest resiliency by eliminating conduits for invasive species. *See, e.g.*, Birdsall J. L., McCaughey W., and J. B. Runyon. 2012. Roads Impact the Distribution of Noxious Weeds More Than Restoration Treatments in a Lodgepole Pine Forest in Montana, U.S.A. Restoration Ecology 20: 517-523, 518 ("Exotic plan species frequently occur along roadsides; roads can act as conduits for their spread and invasion into neighboring habitats"). To that end, the revised LMP 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.

Remove unneeded roads to improve watershed health

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 Watershed Condition Framework (WCF) roads and trails indicator as well as section 303(d) of the Clean Water Act, 33 U.S.C. § 1313(d). The Forest Service's WCF characterizes the health and condition of national forest watersheds as Class 1: Properly Functioning, Class 2: Functioning at Risk, or Class 3: Impaired, based on a set of twelve condition indicators (USDA Forest Service 2011a). Indicator #6 is the condition of forest roads and trails and provides an important measure of the effects of the transportation system on the ecological integrity of aquatic systems. The indicator is based on four roads- and trails-related attributes: open road density; road maintenance; proximity to water; and mass wasting.

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.

Maintain needed roads to create resilient forests

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), 78 Fed. Reg. 66,819 (Nov. 6, 2013) (agency tasked with enhancing resilience and adaptation to climate change impacts). Plan components should direct needed roads to 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. 2014 Literature Review at 10-11. *See also* FSH 1909.12, ch. 20, § 23.23l(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, § 23.2l(2)(b)(1) (plan components may include decommissioning objectives).

Adopting road density thresholds and general forest matrix is one of the most effective strategies for achieving an ecologically sustainable road system. *See* 2014 Literature Review at 6-8 & Att. 2 (summarizing best available science on road density thresholds for fish and wildlife). Road density thresholds are critical to protecting important watersheds, migratory corridors and other key wildlife habitat. There is a direct correlation between road density and various markers for species abundance and viability. *See* 2014 Literature Review at 7-8; *see also* 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, § 23.23l(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, as well as motorized trails. *See* 2014 Literature Review, Att. 2 (describing proper methodology for using road density as a metric for ecological health).

In addition to route density, scientifically credible, landscape-scale measures of risk to aquatic integrity include miles of road connected by direct surface flow to streams and the number of road or stream crossings by subwatershed. *See* USDA Forest Service (2012). Travel Analysis Process: A Guidebook. Guidance for Region 5 Forests to Complete Travel Analysis. *Available at* http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5435022.pdf. The revised plan should include plan components focused on restoring aquatic and terrestrial habitats and habitat connections by, in part, reducing stream crossings.

Create a financially sustainable road system

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. *See* 2014 Literature Review at 14-15. It increases the fiscal burden of the entire system, since it is much more expensive to fix decayed roads than maintain intact ones. And inadequate road maintenance endangers and impedes access for forest visitors and users due to landslides, potholes, washouts and other failures.

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

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

Applicable legal requirements define, in part, the Standards and Guidelines included in the forest plan. 36 C.F.R. § 219.7. To ensure a successful forest planning effort, we recommend that the Forest Service communicate all applicable legal requirements and policies applicable to transportation infrastructure that define the agency's decision-space. One way to accomplish this is by providing 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 Orders and associated adaptation plans; applicable BMPs; Roadless Area Conservation Rule requirements; etc.). The explanation of subpart A must make clear that the Forest Service is required 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.

b. Include achievement and maintenance of an appropriately sized and environmentally and fiscally sustainable minimum road system as a Desired Future Condition.

Desired conditions are "specific social, economic, and/or ecological characteristics of the plan area . . . toward which management of the land and resources should be directed." 36 C.F.R. § 219.7(e)(1)(i). 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.

Fiscal Sustainability

Sustainability is "[t]he capability to meet the needs of the present generation without compromising the ability of future generations to meet their needs." 36 C.F.R. § 219.19. The desired future condition for transportation infrastructure should include a road system that reflects long-term funding expectations. Unneeded roads, including temporary and non-system roads, should be decommissioned and reclaimed as soon as practicable to reduce environmental and fiscal costs.

Reclamation efforts should be prioritized in roadless and other ecologically sensitive areas to enhance ecological integrity and connectivity and to facilitate climate change adaptation. The system should meet 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, decommissioning, and maintenance activities shall be designed to minimize adverse environmental impacts.

Climate Resilience

Climate change generally intensifies the adverse impacts associated with roads. In particular, the warming climate is 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. 2014 Literature Review at 9-14. As the Council on Environmental Quality's (CEQ) draft guidance on climate change recognizes,

> 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. For example, a proposed action may require water from a stream that has diminishing quantities of available water because of decreased snow pack in the mountains, or add heat to a water body that is exposed to increasing atmospheric temperatures. 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.

79 Fed. Reg. 77,802, 77,828-29 (Dec. 24, 2014).

Many national forest roads were not designed to current engineering standards (or, in some cases, any engineering standards), making them particularly vulnerable to climate-induced hydrologic shifts. That vulnerability is further exacerbated by the deteriorating physical condition of the system and significant maintenance backlog, as described above. Moreover, even those roads designed to current engineering standards and hydrologic conditions may fail under future weather scenarios, further intensifying adverse ecological impacts, public safety concerns, and maintenance needs (USDA Forest Service 2010b). The desired future condition for transportation infrastructure should include a climate resilient forest road system designed and maintained to withstand future storm events associated with climate change.

Sustainable Access

The 2012 planning rule requires forest plans to provide for social and economic sustainability, including sustainable recreation and access, and integrated resource management for multiple use considering "[a]ppropriate placement and sustainable management of infrastructure, such as recreational facilities and transportation and utility corridors," and "[o]pportunities to connect people with nature." 36 C.F.R. §§ 219.8(b), 219.10(a)(3) & (a)(10). Well-sited and maintained

transportation infrastructure can provide important services to society, including access for the utilization, enjoyment, and protection of forest resources.

The desired future condition for transportation infrastructure should provide for safe and consistent access for the utilization and protection of the forest. It should prioritize passenger vehicle access to major forest attractions, and ensure passenger vehicle roads are maintained to standard to ensure reliable access to popular developed recreation sites. Understanding where the supply and demand for access exists is critical to ensuring well-sited transportation infrastructure. To that end, the Forest Service should include consideration of the Recreation Opportunity Spectrum (ROS) and setting prescriptions in this desired future condition. Plus, sustainable access depends in large part on adequate management and maintenance of system routes. Therefore the desired future condition for transportation infrastructure should include sufficient management and maintenance of system routes.

c. Incorporate a concise, measurable, and time-specific statement of a desired rate of progress towards achieving a sustainable minimum road system as part of the Objectives.

The planning rules define an objective as "a concise, measureable, and time-specific statement of a desired rate of progress toward a desired condition or conditions." 36 C.F.R. § 219.7(e)(1)(ii). We suggest the following Objectives:

(1) Over the life of the plan, decommission all roads identified as likely not needed for future use in the travel analysis report. Consistent with the 2012 planning regulations and subpart A rule, the determination of whether a road is not likely needed for future use should be based on reasonably foreseeable budgets.

(2) 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.).

(3) Over the life of the plan, implement the minimum road system.

(4) Within 10 years of plan approval, address all roads within at-risk and impaired watersheds according to the WCF roads and trails indicator, and within watersheds contributing to sediment or temperature impairment under section 303(d) of the Clean Water Act.

(5) Reduce deferred maintenance on priority infrastructure assets annually.

d. Standards must ensure that roads do not impair ecological integrity and otherwise satisfy the substantive requirements of the 2012 Planning Rule and subpart A.

A Standard is a mandatory constraint on a project and activity decisionmaking, established to help achieve or maintain a desired condition, to avoid or mitigate undesirable effects, or to meet applicable legal requirements. 36 C.F.R. § 219.7(e)(1)(iii). The 2012 planning rule requires that plans provide for the ecological integrity of aquatic and terrestrial ecosystems and watersheds, including

maintaining or restoring their structure, function, composition, and connectivity, while taking into account factors such as climate change and other stressors, the broader landscape beyond the plan area, and opportunities for landscape-scale restoration. 36 C.F.R. § 219.8(a)(1). We suggest the following Standards:

(1) To ensure ecological integrity and species viability, establish density standards based on the best available science for all motorized routes: (i) In important watersheds, wildlife habitat, migratory corridors, and general forest matrix; and (ii) 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 unneeded roads 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:
   i. 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.
   ii. "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."[5]
   iii. All temporary roads will be closed and rehabilitated within a reasonably short time following completion of the use of the road.
   iv. Over the life of the plan, all temporary roads without a project-specific plan will be decommissioned.

(6) All roads, including temporary roads, will comply with applicable and identified Forest Service BMPs for water management.

(7) With respect to riparian management zones, the forest shall:

[5] San Juan National Forest Land and Resource Management Plan, Standard 2.13.22, p. 101.

i. Establish widths for riparian management zones around all lakes, springs, perennial and intermittent streams, and open-water wetlands.
ii. Ensure that all management practices and project-level decisions with road-related elements in riparian management zones do not cause detrimental changes in water quality or fish habitat.

(8) Watershed restoration action plans address road-related impacts identified in the travel analysis report.

e. Design Guidelines to achieve a sustainable minimum road system.

We suggest the following Guidelines:

(1) Project-level decisions with road-related elements include achieving a sustainable minimum road system in the statement of purpose and need and implement travel analysis report recommendations, the minimum road system, and motorized route density standards.

(2) Routes identified for decommissioning through the travel analysis report 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:
i. 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;
ii. Benefit to species and habitats;
iii. Addressing impaired or at-risk watersheds;
iv. Achieving motorized route density standards; and
v. Enhancement of visitor experiences.

(4) Prioritize maintenance of needed routes based on:
i. Storm-proofing needs and opportunities (e.g., relocating roads away from water bodies, resizing or removing culverts, etc.);
ii. Reducing landscape-scale fragmentation and enabling landscape-scale processes;
iii. Restoring aquatic and terrestrial habitats and habitat connections by, in part, reducing stream crossings; and
iv. Increasing resilience.

f. Establish a monitoring program that ensures progress toward desired conditions.

A thoughtful forest plan monitoring program is critical because it determines the degree to which a forest plan is maintaining or making progress toward achieving desired conditions. 36 C.F.R. §§ 219.5 (monitoring "provides feedback for the planning cycle by testing relevant assumptions, tracking relevant conditions over time, and measuring management effectiveness"), 219.7 (listing a monitoring program as a required plan component). Monitoring questions should be based on

desired conditions, objectives, or other plan components. 36 C.F.R. § 219.12(a)(2). We suggest the following annual monitoring questions to address the desired conditions and objectives outlined above:

(1) Miles of road improved or maintained to meet BMP guidelines;

(2) Miles of road addressed for all roads within at-risk and impaired watersheds according to the WCF roads and trails indicator, and within watersheds contributing to sediment or temperature impairment under section 303(d) of the Clean Water Act;

(3) Number of Watershed Restoration Action Plans (WRAPs) where all identified road work has been completed and where the roads and trails indicator has been moved form "poor" to "fair" or from "fair" to "good";

(4) Percentage of watersheds in Properly Functioning Condition;

(5) Percentage of road miles decommissioned in a subwatershed with a "poor" WCF roads and trails indicator;

(6) Miles of roads identified as likely not needed for future use in the travel analysis report decommissioned;

(7) Miles of road decommissioned for roads identified as high-priority, unneeded and 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.);

(8) Number of projects removing stream-crossings or roads with direct hydrological connections to streams;

(9) Percentage of subwatersheds with an identified minimum road system;

(10) Percentage of subwatersheds with an implemented minimum road system;

(11) Miles of temporary roads existing on the forest, and anticipated project termination dates for each temporary road;

(12) Percentage of deferred maintenance addressed on priority infrastructure assets; and

(13) Comparison of deferred maintenance levels for priority infrastructure in the prior year to current deferred maintenance levels.

2. Apply minimization criteria when designating trails and areas.

Executive Orders 11644 and 11989 require federal land management agencies to plan for off-road vehicle (ORV) use based on protecting forest resources and other recreational uses. Specifically, federal agencies must locate areas and trails designated for ORV use with the objective of minimizing damage to soil, watershed, vegetation, and other public lands resources; harassment of

wildlife and significant disruption of wildlife habitat; and conflicts between ORV use and other existing or proposed recreational uses. The Forest Service codified the minimization criteria in Subpart B of the Travel Management Rule. This applies to both summer and winter motorized use designations because the executive orders define ORV to include "any motorized vehicle designed for or capable of cross-country travel on or immediately over land, water, sand snow, ice," etc. *See* Exec. Order 11644 § 2(3).

We understand the Forest Service intends to make decisions about specific routes and areas for motor vehicle use through project-level NEPA analysis, and not in this Forest Plan revision. DEIS at 25. The Forest Service states that the Colville National Forest completed non-winter motor vehicle use designations as required by Subpart B of the Travel Management Rule in 2008. Amendment #31 to the 1988 Forest Plan, however, complied with only a portion of Subpart B by allowing motor vehicle use only on designated roads, trails, and areas. It did not analyze whether those designations of areas and trails for motorized use complied with the executive order and Travel Management Rule minimization criteria. Since then, the 1988 Forest Plan and Amendment #31 have been the sole basis for authorizing motorized vehicle use on the Colville National Forest.

Despite the lack of any site-specific travel planning to designate the ORV areas and trails across the forest, the Forest Service continues to issue motor vehicle use maps (MVUMs). To the extent the Forest Service proposes to continue to authorize motorized vehicle use on forest areas and trails consistent with this Forest Plan revision, and depict those designations on a MVUM, it must verify the prior travel management decisions were made consistent with the minimization criteria. *See, e.g.*, *WildEarth Guardians v. U.S. Forest Service*, 790 F.3d 920, 931-932 (9th Cir. 2015) (holding the Forest Service's designations of areas open to OSV use was not in accordance with law, where the agency failed to demonstrate compliance with the minimization criteria because it was waiting until the "next stage of travel planning").

To properly apply the minimization criteria, the Forest Service must (1) designate ORV areas and trails with the objective of actually minimizing impacts—not just identify or consider them—and show how they did so in the administrative record; and (2) apply a transparent and common-sense methodology for meaningful application of the minimization criteria. *See* The Wilderness Society, Achieving Compliance with the Executive Order "Minimization Criteria" for Off-Road Vehicle Use on Federal Public Lands: Background, Case Studies, and Recommendations (May 2016) (Attachment B).

3. The Forest Service must address winter travel planning.

The Colville National Forest has done even less to address winter motorized travel across the forest. In 2015, the Forest Service finalized Subpart C of its Travel Rules. Under this new rule, each national forest unit with adequate snowfall must designate and display on a map a system of areas and routes where over-snow vehicle (OSV) use is permitted based on protection of resources and other recreational uses. 36 C.F.R. part 212, subpart C, 80 Fed. Reg. 4500 (Jan. 28, 2015). OSV use outside the designated system is prohibited. 36 C.F.R. § 261.14. Implemented correctly, the rule presents an important opportunity to enhance quality recreation opportunities for both motorized and non-motorized users, protect wildlife during the vulnerable winter season, prevent avoidable damage to air and water quality, and restore the balance to the winter backcountry on the Colville National Forest.

The framework set forth in this LMP revision for management of OSVs fails to satisfy the agency's obligations under subpart C. The 2008 Amendment #31 to the 1988 Colville Forest Plan expressly exempted OSVs from its terms allowing motor vehicle use only on designated roads, trails, and areas so as to comply with the 2005 Travel Management Rule. The Colville's 2016 revised Forest Plan identifies areas suitable for OSV use, but states that site-specific designations will be made in later site-specific NEPA analysis. This improperly continues to ignore the agency's duties to prohibit over-snow vehicle use except on routes, areas or trails that have been designated for such use.

In 2013, Winter Wildlands Alliance successfully challenged the 2005 Travel Management Rule's exemption for OSVs in federal court. *Winter Wildlands Alliance v. U.S. Forest Service*, No. 1:11-CV-586-REB, 2013 U.S. Dist. LEXIS 47728, at *27-36 (D. Idaho Mar. 28, 2013) (explaining that OSV "designations *must* be made and they *must* be based on the [minimization] criteria") (emphasis in original). As a result, the Forest Service revised its travel rules and created subpart C. Ultimately, this means rather than allowing OSV use largely by default wherever that use is not specifically prohibited, the rule creates a paradigm shift to a "closed unless designated open" management regime.

The Forest Service must comply with the minimization criteria when allocating winter motorized use on the Colville. In the very least, the Forest Service must provide a date-certain timeline for complying with its own rules, including subpart C.

It is worth noting that the LMP contains an objective with a date-specific timeline for reconstructing a vehicle sno-park on the Albian Hill Road to at least double capacity within 15 years. LMP at 109. Before the Forest Service begins to think about expanding over-snow motor vehicle use on the Colville, it must at least come into compliance with its own rules for OSV use.

Here, the Forest Service proposes only one standard applicable to over-snow use:

> FW-STD-AS-01, Over-snow Vehicle Use, states: "Cross-country over-snow vehicle use will be discontinued for the season *when areas no longer allow for continuous over-the-snow travel in order to protect other resources such as soil and vegetation*."

LMP at 62 (emphasis added). It is repeated as a guideline. LMP at 63 (FW-GDL-AS-03, Over-snow Vehicle Use). This approach is inconsistent with subpart C and therefore not in accordance with law. We recommend revising the standard and guideline to make a date-certain commitment to prohibiting all cross-country OSV use on the forest, and allowing OSV use only on designated areas and trails when those areas and trails meet sufficient minimum snow depths.

Minimum snow depth restrictions can be an important tool to minimize impacts associated with OSV use—particularly with climate change leading to reduced and less reliable snowpack. The best available science shows that minimum snow depths should be at least 18 inches for cross-country travel and 12 inches for travel on groomed trails. *See* Winter Wildlands Alliance, *Snowmobile Best Management Practices for Forest Service Travel Planning: A Comprehensive Literature Review and Recommendations for Management* (Dec. 2014) (Attachment C). In addition to increasing its minimum snow depths to those supported by the best available science, the Forest Service should address its plans to monitor and enforce minimum snow depth restrictions, including implementing emergency closures when snowpack falls below the relevant thresholds. Without a specific minimum snow depth, the direction in the Forest Plan becomes somewhat meaningless when left completely open

to interpretation. We urge the Forest Service to institute a minimum snow depth standard to protect forest resources from OSV use.

Finally, the Forest Service should be doing winter ROS or, in the alternative, must make clear that ROS does not govern winter uses or otherwise constrain subpart C designations.

4. Develop a Forest Plan that protects and promotes wildlife conservation.

We strongly urge the Forest Service to develop a revised LMP that adequately protects wildlife, consistent with the agency's mandates. In particular, the Forest Service must do more to protect bull trout, grizzly bear, lynx, caribou, elk, deer, wolverine, moose, and wolf by providing connected habitats that are protected from the major threats such as roads, motorized trails and areas, and extractive uses.

Bull Trout

We applaud the Forest Service's focus on the need to accelerate improvement in watershed condition across the Forest, especially as it relates to protecting and ensuring the recovery of bull trout and its designated critical habitat.

In August of 1998, the U.S. Fish and Wildlife Service issued a Biological Opinion on the 1988 Colville Forest Plan as amended by INFISH in response to the listing of bull trout ("1998 BiOp"). The 1998 BiOp analyzed the effects to bull trout from the Colville Forest Plan, among others. In it FWS noted, "within the range of the DPSs of bull trout, LMPs provide direction and standards for broad classes of project activities and land and water management practices that may affect bull trout. LMPs provide policy guidance for various federal activities carried out on the forest or management area." The programmatic 1998 BiOp ultimately concluded that continued implementation of the Forest Plans was not likely to jeopardize the continued existence of bull trout. However, the 1998 BiOp also concluded that because "[n]o critical habitat has been designated for the species [….] none will be affected."

As the Forest Service notes in its DEIS, critical habitat for bull trout was designated on the Colville National Forest on October 18, 2010. 75 Fed. Reg. 63898 (Oct. 18, 2010). The 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.

On April 10, 2008, the Colville National Forest issued Forest Plan Amendment #31 along with a decision notice and finding of no significant impact. The Forest Service prepared a BA for the Forest Plan Amendment that determined implementation of Amendment #31 would not adversely modify critical habitat for bull trout. The FWS's Letter of Concurrence concluded by stating the Forest Service must re-analyze the Amendment if new critical habitat is designated that may be affected by the Amendment. LOC at 1-2. In 2010, the FWS identified streams in the Colville National Forest in the bull trout critical habitat rule, including the Pend Oreille River, LeClerc Creek, Slate Creek, Sullivan Creek, and Mill Creek. 75 Fed. Reg. 63898, 64061-64067 (Oct. 18, 2010) (Unit 31).

The Forest Service complete consultation with FWS regarding the implementation and impacts of the proposed Forest Plan revision on bull trout and bull trout critical habitat.

As part of its consultation, the Forest Service must consider impacts to bull trout and its critical habitat from climate change. New information shows that climate change is affecting bull trout and its critical habitat by warming stream temperatures, altering stream hydrology, and changing the frequency, magnitude, and extent of climate-induced events like floods, droughts, and wildfires. These new studies document the larger role of climate change in affecting the status of bull trout throughout their range:

1) Luce, C. H, J. T. Abatzoglou, and Z. A. Holden. 2013. The Missing Mountain Water: Slower Westerlies Decrease Orographic Enhancement in the Pacific Northwest USA. Science 342: 1360-1364 (Attachment D) (documenting declining trends in streamflow timing and volume attributed to orographic precipitation enhancement, in addition to increased temperatures).

2) Isaak, D. J., *et al.* 2016. Slow climate velocities of mountain streams portend their role as refugia for cold-water biodiversity. Proc Natl Acad Sci, DOI: 10.1073/pnas.1522429113 (Attachment E) (showing temperature resistance of mountain streams and highlighting their importance in buffering cold-water species from climate change).

The Forest Service's own Climate Shield website provides a wealth of new information identifying colder, high-elevation streams that serve as a refugia for native bull trout with the goal of improving the odds of preserving native trout populations:

3) U.S. Forest Service Rocky Mountain Research Station, Climate Shield Cold-Water Refuge Streams for Native Trout, *available at* http://www.fs.fed.us/rm/boise/AWAE/projects/ClimateShield.html (last accessed June 23, 2016).

The Forest Service predicts cold-water refuge streams will play an important role in the future protection of bull trout in light of anticipated climate change-related temperature increases. Attachment E at 1.[6]

In addition, new methods of documenting bull trout, new documentation, and new studies on management and restoration efforts indicate the Colville's Forest plan and its motorized use authorizations may affect bull trout to a greater extent than previously considered:

4) Auerbach, N. A., K. A. Wilson, A. I. T. Tulloch, J. R. Rhodes, J. O. Hanson, and H. P. Possingham. 2015. Effects of threat management interactions on conservation priorities. Conservation Biology 29:1626-1635 (Attachment F) (concluding species conservation management that does not consider interactions between actions may result in misplaced investments or misguided expectations of the effort to mitigate threats to species).

5) Barnas, K. A., *et al.* 2015. Is habitat restoration targeting relevant ecological needs for

[6] *See also* http://www.fs.fed.us/rm/boise/AWAE/projects/ClimateShield/downloads/publications_posters/distribution/ClimateShield_BullTrout_1980s_0BKT_RangewideMap.pdf (last accessed July 5, 2016); http://www.fs.fed.us/rm/boise/AWAE/projects/ClimateShield/downloads/publications_posters/distribution/ClimateShield_BullTrout_2080s_0BKT_RangewideMap.pdf (last accessed July 5, 2016).

endangered species? Using Pacific Salmon as a case study. Ecosphere 6(7), art 110 (Attachment G) (identifying improvements for habitat management to improve efficiencies in matching identified needs for conserving a species with explicit management actions).

6) Meyer, K.A. *et al.* 2014. Bull trout trends in abundance and probabilities of persistence in Idaho. North American Journal of Fisheries Management 34:202-214 (Attachment H) (describing bull trout population trends and probability of persistence in Idaho).

7) Wilcox, T. M. *et al.* 2014. A blocking primer increases specificity in environmental DNA detection of bull trout (*Salvelinus confluentus*). Conservation Genetics Resources 6:283-284 (Attachment I) (newly developed environmental DNA survey methods are improving agencies' ability to assess bull trout distribution and identify watersheds where bull trout are at risk of extirpation).

This wealth of new information must be considered in the Forest Service's consultation with FWS as to the impacts of this Forest Plan revision on bull trout and its designated critical habitat. The agency must also consider additional impacts to bull trout, including direct, indirect, and cumulative impacts. It must consider the actions proposed under this forest plan when combined with climate change.

Pursuant to the 2012 planning rules, the Forest Service must consider planning for habitat connectivity or fragmentation impacts as it relates to bull trout and bull trout critical habitat. The proposed Forest Plan revision states:

> Fragmentation of plant and wildlife habitat resulting from growth patterns on lands adjacent to national forests, management activities, and increased use of National Forest System lands is affecting our ability to manage for federally protected species, such as the grizzly bear, woodland caribou, and bull trout.

Forest Plan at 3. The proposed plan includes a desired condition:

> FW-DC-WL-02. Habitat Conditions for Threatened and Endangered Species - Habitat conditions (amount, distribution, and connectivity of habitat) contribute to the recovery of federally listed threatened and endangered species."

We strongly support the proposed action's desired conditions for total road densities to address, *inter alia*, bull trout. We urge the Forest Service to consider the best available science as it relates to road densities and impacts on bull trout and its critical habitat. The proposed road density desired conditions ranging from 2.0 mi/mi2 in focused restoration management areas to 3.0 mi/mi2 in general restoration management areas are insufficient to protect water quality, bull trout, and bull trout critical habitat. This is especially true for road densities within Riparian Conservation Habitat.

Grizzly

The eastern portion of the Colville is in the Selkirk Grizzly Bear Recovery Area that supports a small population of grizzly bears estimated at 40 to 50. Here, the Forest Service proposes the same management of grizzly bear habitat across all action alternatives. It proposes to incorporate management guidance from existing documents in all action alternatives. DEIS at 4-35. This

approach is insufficient, given the current low numbers of grizzly bears in the Selkirk population and continuing impacts from, *inter alia*, roads and trails.

When it listed the grizzly bear in 1975, the FWS identified the following as factors establishing the need to list: (1) present or threatened destruction, modification, or curtailment of habitat or range; (2) overutilization for commercial, sporting, scientific, or educational purposes; and (3) other manmade factors affecting its continued existence. The two primary challenges in grizzly bear conservation are the reduction of human-caused mortality and the conservation of remaining habitat. The Forest Service must take a hard look and assess whether the proposed Forest Plan revision addresses these challenges to grizzly bear conservation. The Forest Service complete consultation with FWS regarding the implementation and impacts of the proposed Forest Plan revision on grizzly bears.

Grizzly bears are large animals with great metabolic demands requiring extensive home ranges. The search for energy-rich food appears to be a driving force in grizzly bear behavior, habitat selection, and intra/inter-specific interactions. Grizzly bears normally avoid people, possibly as a result of many generations of bear sport hunting and human-caused mortality. Avoidance of roads can lead grizzly bears to either avoid essential habitat along roads, or could put them at greater risk of exposure to human-caused mortality if they do not avoid roads.

Habitat fragmentation is significant to large carnivores requiring wide vegetative and topographic habitat diversity (Servheen 1986). Loss and fragmentation of habitat is particularly relevant to the survival of grizzly bears. Large expanses of un-fragmented habitat are important for feeding, breeding, sheltering, traveling, and other essential behavioral patterns. Grizzly bears occur at low densities, have low reproductive rates, exhibit individualistic behavior, and are largely dependent on riparian habitats also used extensively by people; thus, grizzly bear populations are susceptible to human influences. Grizzly bears may avoid key habitats due to human generated disturbances, or become habituated and food conditioned, which may ultimately lead to the animal being killed. Historically, as human settlements, developments, and roads increased in grizzly bear habitat, grizzly bear populations became fragmented. Linkage zones, or zones of habitat connectivity within or between populations of animals, foster the genetic and demographic health of the species.

Until the Forest Service completes full implementation of motorized access management (addressed above), and improves population connectivity, the grizzly bear population on the Colville will remain at risk. The Selkirk ecosystem population continues to face several threats. The Forest Service must do more in this Forest Plan revision than rely on existing management to address those threats.

Canada Lynx

For Canada lynx, the Forest Service proposes "no net increase in groomed or designated over-the-snow routes into lynx habitat at the lynx analysis unit scale." FW-STD-WL-04. Yet as explained above, the agency has never addressed OSV use on the Colville in a meaningful way, and therefore continuing the status quo regarding groomed and designated OSV routes is insufficient.

We support some of the guidelines directed at protecting lynx. Specifically, we support the following guidelines as they appropriately address man-made barriers like roads or permanent canopy openings in lynx habitat:

> FW-GDL-WL-08. Canada Lynx – Transportation System within Identified Lynx Habitat - Road reconstruction that results in increased traffic speed and volume should be avoided. New permanent roads should not be located on forested ridge-tops, saddles, close to forest stringers or in other areas important for habitat connectivity.
>
> FW-GDL-WL-09. Canada Lynx – Habitat Connectivity within Identified Lynx Habitat - Large, permanent openings (generally greater than 300 feet wide with less than 10 percent overstory canopy) should not be created in prey habitat. When temporary openings (resulting from vegetation management treatments) are proposed, adequate forested habitat should be retained between these openings and natural openings to contribute to habitat connectivity.

In sum, however, the plan components lack sufficient guidance to ensure the forest will provide connectivity for lynx.

Indeed, the proposed Forest Plan revision appears to lack sufficient protections for lynx overall. The Forest Service notes that "[w]inter recreation can influence how lynx use habitats (ILBT 2013)" but goes on to admit that "[e]xisting management plans do not address effects of over-the-snow 12890 recreation on lynx habitat." DEIS at 391. As explained above, the Forest Service has not and makes not date-certain commitment to address winter travel management on the forest. This is insufficient to protect lynx.

Woodland Caribou

Certain sections of the Forest Plan revision do not make sense, considering the current lack of winter travel management. For example, the Forest Service provides a desired condition related to woodland caribou habitat, to manage "so that woodland caribou are not displaced from suitable habitat and the caribou can make full use of existing habitat in the recovery area." FW-DC-WL-08, Woodland Caribou Habitat. How does the Forest Service anticipate accomplishing this desired condition, when it has no date-certain plans for closing cross-country OSV travel on the forest or designating areas and trails for OSV use in a way that minimizes impacts to, *inter alia*, woodland caribou?

Deer and Elk

Similarly, for deer and elk habitat the Forest Service proposes a desired condition to provide "[c]over and forage for deer and elk summer and winter range are within historic range of variability for vegetation." FW-DC-WL-12. Also for deer and elk habitat, the Forest Service proposes that "[w]inter ranges . . . hav[e] less than 30 percent of the winter range within a zone of influence of an open road or motorized travel route." FW-DC-WL-13. How does the Forest Service anticipate accomplishing these desired conditions, when it has no date-certain plans for closing cross-country OSV travel on the forest or designating areas and trails for OSV use in a way that minimizes impacts to, *inter alia*, deer and elk?

Connectivity, Generally

The proposed Forest Plan and DEIS do not include maps to show and encourage achieving the minimally described desired connectivity outcomes. For example, there is nothing in the plan on cross-boundary connectivity—even though the Forest Service acknowledges that linkage to the Cascades is important. Specifically, the Forest Service notes:

> Regional habitat connectivity has been evaluated for a variety of wildlife species, including the surrogate wildlife species used to evaluate connectivity in this planning area (Singleton et al. 2002, WWHCWG 2010). These assessments have shown the importance of the Colville National Forest in providing stepping-stone habitats between the Cascades and Selkirk Mountains (Singleton et al. 2002, WWHCWG 2010, Proctor et al. 2015). Connectivity from the Cascades to the Kettle Range to the Selkirk Mountains is interrupted by transportation corridors and human developments associated with the Okanogan, Upper Columbia, and Pend Oreille river valleys (Singleton et al. 2002, WWHCWG 2010). Additionally, connectivity planning in southern British Columbia identified linkage area that could greatly enhance wildlife movements between the Selkirk Mountains and the Purcell Mountains (Apps et al. 2007, Proctor et 15406 al. 2015).

DEIS at 401. The DEIS does not say that the proposed Forest Plan revision does anything to address the importance of the Colville National Forest to this connectivity by promoting connectivity in the identified linkage areas or other areas indicated by recent research. There is no evidence of use of any science on spatial locations or relative importance of areas for connectivity. The Forest Service must do more to evaluate and incorporate protections for connectivity across the Colville to demonstrate the agency purposefully planned for connectivity. The current assessment and proposal fail to satisfy NEPA's hard look requirement.

Conclusion

Thank you for the opportunity to comment on the Colville Forest Plan revision. Please keep us informed of any developments in the process and additional opportunities to comment.

Sincerely,

Marla Nelson
Rewilding Attorney