



March 29, 2024

Lolo National Forest Supervisor's Office
Attn: Amanda Milburn - Lolo Plan Revision
24 Fort Missoula Rd
Missoula, MT 59804 SM.FS.LFNRevision@usda.gov

RE: Comments from The Pew Charitable Trusts on the Proposed Action for the revised Lolo National Forest Plan

Submitted via CARA at: <https://cara.fs2c.usda.gov/Public/CommentInput?project=62960>

Dear Ms. Milburn:

The Pew Charitable Trusts (Pew) respectfully submits the attached comments on the Proposed Action (PA) for the Lolo National Forest Land Management Plan.

Pew's U.S. Conservation program seeks to sustain biodiversity and resilient ecosystems by collaborating with Tribes, local communities, businesses, policymakers, and other stakeholders to achieve balanced, commonsense policy solutions at the federal and state level.

Consistent with this objective, Pew has an interest in the lands and rivers of the Lolo National Forest (NF) and implementation of the U.S. Forest Service's 2012 Land Management Planning Rule (planning rule) (36 CFR Part 219) through the forest plan revision process. The purpose of the planning rule is to design land and resource management plans (forest plans) that "promote the ecological integrity of national forests" and "guide management of NFS lands so that they are ecologically sustainable and contribute to social and economic sustainability" (§ 219.1(c)). We have a particular interest in the future plan as it applies to the identification and conservation of ecologically important areas, maintenance and safeguarding of free-flowing rivers, and protection of identified wildlife migration corridors and other areas of habitat connectivity, so as to help the Lolo resist and adapt to climate-induced changes. As the Forest Plan Revision Team prepares its comprehensive Draft Revised Plan and Draft Environmental Statement (Draft Plan/DEIS), Pew appreciates your consideration of our comments and suggestions outlined below.

Incorporating a Climate-Informed Forest Plan

As recognized by the PA, the historic climatic conditions that the forest experienced are expected to change over time. In response, this requires a management approach that facilitates ecosystem resilience and adaptation to the anticipated new conditions, as well as to prepare for varying levels of uncertainty of those conditions. Climate-ready management plans lay out specific goals, objectives, strategies, and interventions that will help ecosystems and species withstand and adapt to climate change impacts. To meet the agency's ecological integrity and sustainability obligations, a climate-ready frame must be the management approach through which this plan revision is evaluated.

As the Forest Plan Revision Team prepares its Draft Plan/DEIS, Pew encourages the agency to fully incorporate the following five components of a climate-ready management plan to ensure the management of the Lolo NF is ready for the climate-change induced challenges it will face:

1. **Incorporate Climate Scenario Planning:** Conservation strategies that are based on climate scenario planning should analyze and predict future conditions and threats. This dictates what actions should be taken now to address changing conditions and typically includes an assessment of species and their role in the ecosystem, weather patterns, and other ecological and environmental factors.
2. **Identify Specific Goals and Strategies:** Specific goals and strategies for ecosystems and species outcomes around resisting or adapting to climate change impacts and other key stressors should be identified, together with initial schedules for specific conservation actions. This could include targets for wildlife habitat quality and distribution or restoring an ecologically appropriate, climate-informed distribution of forest age classes for the diversity of functions these seral states provide. Conserving High Ecological Value Areas (HEVAs, described below), and thereby the underlying values and resources for which they were identified, as well as known wildlife migration corridors are two key approaches to supporting these kinds of outcomes.
3. **Establish Systematic Monitoring:** The agency should incorporate systematic monitoring that measures trends in key environmental processes like annual rainfall and temperature, and the population status of key species that can serve as indicators of overall ecosystem health, together with a regular schedule and process for evaluating the effectiveness of management activities and determining what adjustments should be made to improve outcomes.
4. **Employ Adaptive Management:** Adaptive management, using mapping, monitoring, and other scientifically credible data, should be used to track what management is occurring and how focal species and ecosystems (from #2, above) are responding. This allows managers to adjust or improve the forest plan and/or its implementation to better support the focal species and ecosystems.
5. **Engage Stakeholders and Tribal Nations:** The Forest Service should take part in robust and meaningful engagement of communities and Tribes during the development of the revised plan and the monitoring practices that recognizes the needs and desires of people connected to the forest. We would encourage the Forest Service to incorporate traditional ecological knowledge into the planning process, analysis, and future plan components in close partnership with cooperating tribal governments. Research shows that community engagement efforts or Tribal co-management processes result in increased durability of the conservation outcomes sought by the plan. Additionally, the need of human communities to be resilient to climate change should also be considered in management decisions.

Protecting Lands with High Ecological Value in the Lolo National Forest

Identifying areas of high ecological value in the Lolo NF is critical to prioritizing new conservation efforts. Pew commissioned a report¹ authored by Conservation Science Partners that evaluated current unprotected lands within the Lolo NF and identified areas in the top 10 percent of ecological value to help the Forest Service and public alike to better understand which places within the Lolo NF may be most important to conserve. The set of ecological and environmental indicators used in the analysis was selected based on previous work by Conservation Science Partners and was co-developed with Pew staff to best capture the range of ecological values represented within lands managed by the Forest Service. Indicators include: total carbon, climate resilience, imperiled species richness, vertebrate species richness, ecological intactness, ecological connectivity, and vegetation diversity. From the composite scoring, polygons were derived that indicate unprotected areas (i.e., GAP status 3 or 4) that score in the top 10 percent of the composite index. These areas are termed HEVAs in the report. Figure 1 from the report, which shows the location of HEVAs on the Lolo NF, is included below.

¹ Conservation Science Partners. 2021. Ecological value of lands in the Lolo National Forest. Final Report. Truckee, CA. Submitted via CARA for Lolo Draft Assessment comment period

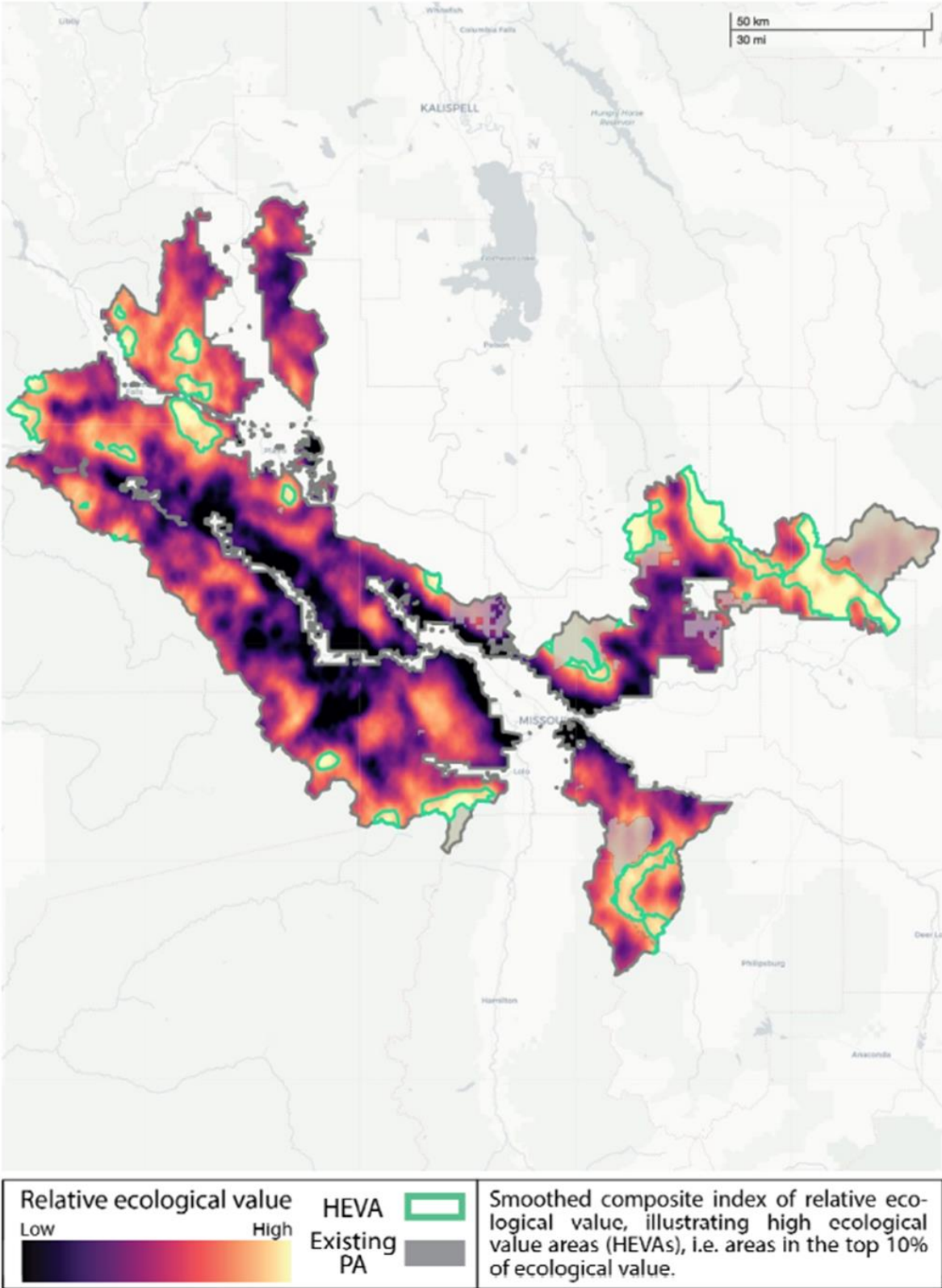


Figure 1. Map of Lolo National Forest showing the smoothed composite index of ecological value.

Under the planning rule, there are a variety of area-based management approaches available to the Forest Service that can be used to tailor management considerations that go beyond forest-wide plan components to reflect the values that are specific to a given area. These include: recommended wilderness, Research Natural Areas, wild and scenic rivers, and other management or geographic areas like Backcountry Management Areas, and key linkage areas, all of which are important tools for conserving biodiversity, securing core habitat, and supporting many aspects of a forest's ecological integrity. We discuss each of these tools in more depth below and how they can be applied to protect priority areas of high ecological value in the Lolo NF. Pew encourages the forest planning team to apply conservation-oriented management in the Draft Plan/DEIS to each of the identified HEVAs in the report.

Recommended Wilderness

Area-based management approaches, such as recommended wilderness, are a critical tool for conserving biodiversity, core habitat, and other aspects of a forest's ecological integrity. Such approaches are particularly relevant given the Administration's goal to conserve at least 30 percent of our nation's lands and waters by 2030 (30x30). As the Forest Plan Revision Team prepares the Draft Plan/DEIS, we urge that it incorporate input from Indigenous Tribes and stakeholders to identify areas that can help achieve this goal while protecting and enhancing the unique and important values of the forest.

The planning rule requires the Forest Service provide for the "Protection of congressionally designated wilderness areas as well as 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." (36 CFR 219.10(b)(1)(iv)). Four congressionally designated wilderness areas reside in the Lolo NF, accounting for 147,893 acres. The 1986 Lolo Forest Plan recommended 223,915 acres for wilderness designation across the NF, including the Great Burn, Bob Marshall Additions, Selway-Bitterroot Addition/Lolo Creek, and Sliderock. These areas have not received a congressional wilderness designation to date; however, since 1986, multiple community-backed wilderness legislative proposals have included portions within the Lolo NF. Pew recommends that the Forest Service retain, as a baseline, the 1986 recommended Wilderness parcels across each Draft Plan/DEIS alternatives and include additional recommended wilderness polygons submitted by local community stakeholders into the range of alternatives for the Draft Plan/DEIS as noted below.

The planning rule requires the Forest Service to determine whether to recommend areas for wilderness designation during the forest plan revision process (36 CFR 219.7(c)(2)(vii)). Chapter 70 of the Land Management Planning Handbook (FSH 1909.12) provides specific guidance for the wilderness inventory, evaluation, analysis, and recommendation process. Parallel to the Forest Service's Chapter 70 process, community stakeholders in the Lolo region undertook comprehensive analyses to develop proposals recommending areas for wilderness and other conservation designations.

Recommendation: Pew encourages the Forest Plan Revision Team to consider recommended wilderness designation for the following identified areas within the forest's ranger district that fit the criteria laid out in section 2(c) of the Wilderness Act, including but not limited to: the Cube-Iron Silcox Roadless Areas, Hoodoo Roadless Area, Ward Eagle Roadless Area, Meadow Creek/Upper North Fork Roadless Area, Reservation Divide Roadless Area, a portion of the Selway-Bitterroot Addition/Lolo Creek Roadless Area, Sliderock Roadless Area, Stony Mountain Roadless Area, portions of the Bob Marshall Additions, and Marshall Peak/West Fork Clearwater Roadless Area. Additionally, the preferred alternative in the Lolo NF Draft Plan/DEIS should ensure that all plan components for designated wilderness and areas recommended for wilderness designation prioritize protection of wilderness values and avoid degradation of wilderness characteristics, such as by mechanized use.

Designating Other Conservation-Oriented Management Areas

In addition to recommended wilderness, Pew supports strategies for protecting and enhancing values, such as uninterrupted wildlife habitat, solitude, and scenic integrity and providing opportunities that emphasize backcountry and primitive recreation, through the targeted use of management or geographic areas. Other area-based management approaches, such as Research Natural Areas (RNAs) and Backcountry Management Areas (BMAs), are critical tools for conserving biodiversity, core habitat, and other aspects of a forest's ecological integrity. Such approaches are particularly relevant given the Administration's 30x30 goal.

By prescribing appropriate, conservation-oriented management to such areas, ecological health and resilience of the forest would be improved, while selectively allowing a broader range of uses (e.g., nonmotorized mechanized travel) and management techniques (e.g., chainsaws for trail maintenance and fire management) than are impermissible in designated wilderness.

The BMAs outlined in the proposed action consist of relatively large areas characterized by an environment influenced primarily by natural ecological processes such as natural succession, fire, insects, and disease. These areas provide a variety of motorized and nonmotorized recreation opportunities that are generally primitive or semi-primitive in nature. They also contribute to the habitat needs of species that require seclusion or connectivity of large, relatively undisturbed areas. As noted in the PA, all inventoried roadless areas are included in BMAs.

To provide further opportunities for solitude and nonmotorized recreation outside of wilderness and recommended wilderness, we support the use of the Primitive and Semi-Primitive Nonmotorized Recreation Opportunity Spectrum (ROS) classes, along with adequate plan components, in appropriate areas. We encourage the planning team to consider dividing BMAs into ROS Classes of Semi-Primitive Motorized (possibly separating this into summer and winter) and Semi-Primitive Non-Motorized.

Recommendation: Revise Desired Condition- 01 and include "semi-primitive nonmotorized recreation opportunities" as the predominate focus for travel within backcountry management areas. Add to Goals: "Collaborate with Montana Department of Fish, Wildlife and Parks (Montana FWP) to identify priority blocks of core seasonal habitats, stopover habitat, and the migration corridors necessary to connect them that reside within BMAs." Add an objective that reads "Within two years of plan approval, in collaboration with Montana FWP and other partners, initiate five projects that maintain, restore, and enhance habitat conditions within BMAs that facilitate wildlife movement."

Protecting for Migration and Connectivity

The conservation of big game migration corridors and seasonal habitats directly contributes to the planning rule's requirements related to ecological, social, and economic sustainability. The revision of the Lolo Forest Plan provides a significant opportunity to promote the conservation and restoration of ecological connectivity for big game, as well as the numerous other species that utilize the same habitat.

New technologies, such as Global Positioning System (GPS)-enabled collars that allow biologists to track animal movements in real time, have dramatically enhanced knowledge about the movement characteristics of big game species, including the length and location of migration routes throughout the state of Montana. Intact habitat, utilized by migrating big game, supports multiple species and increases the resiliency of forests. There are elements in the planning rule (36 CFR Part 219) which directly support the inclusion of management direction for the conservation of migrating big game. Specifically, the rule:

1. Sets expectations that revised forest plans will maintain or restore the ecological integrity of terrestrial and aquatic ecosystems and watersheds within the plan area, including maintaining or restoring structure, function, composition, and connectivity (§ 219.8).

2. Requires consideration of the plan area’s contribution to ecological conditions within the broader landscape (§ 219.8(a)(ii)), how conditions within the broader landscape may influence sustainability within the plan area (§ 219.8(a)(iii)), and opportunities for landscape scale restoration (§ 219.8(a)(vi)).
3. Directs the Forest Service to collaborate with federally recognized Tribes, Alaska Native Corporations, other Federal agencies, and State and local governments when developing plan components to provide for habitat for species used and enjoyed by the public (§ 219.10(a)(5)).
4. Requires consideration of habitat conditions for species used by the public for hunting, fishing, trapping, gathering, observing, subsistence, and other activities (§ 219.10(a)(5)).
5. Considers the plan area’s role and contribution within a broader landscape (§ 219.7(f)(1)(ii)), which is relevant for forests where migration corridors and seasonal habitats span multiple land ownerships, and where the plan area plays an important role in the context of the broader landscape.

Complementing this direction in the planning rule, on October 14, 2020, in a memo to Regional Foresters and Forest Supervisors in Regions 1, 2, 3, 4, 5, and 6, the Forest Service Washington Office issued additional guidance emphasizing the importance of conserving migratory corridors for big game. The memo speaks to the importance of conserving migratory corridors for elk, mule deer, and pronghorn as well as prioritizing the improvement of winter range conditions. The memo encourages forests “in the spirit of shared stewardship, to coordinate and collaborate with states on landscape-scale issues as well as to look at potential improvements on big game summer range habitat which occur on many National Forests.”

In addition, on June 23, 2022, Secretary of Agriculture Tom Vilsack issued Secretarial Memorandum 1077-044, directing the Forest Service to, among other things, develop policy recommendations to conserve wildlife migration corridors. Additionally, a letter signed by the Forest Service’s Deputy Chief on August 19, 2022, specifically focused on big game migration. The letter directs Regions to consider “ecological connectivity and wildlife corridors during broad-scale planning associated with the land management planning process and implementation of land management plans through localized project planning and decision making.” This guidance parallels the Department of the Interior’s Secretarial Order 3362, which directs the agency to work with western states, including Montana, to enhance and improve big game winter range and migration corridors.

In addition to these federal directives, in 2020, the Montana FWP adopted a Terrestrial Wildlife Movement and Migration Strategy² to focus on migration corridor conservation. The FWP strategy includes Action 5, which directs the agency to “work collaboratively with local, multi-state, federal, and tribal governments to increase consideration and maintain functionality of wildlife movement and migration in land use, recreation, mining and energy, community and economic development, and transportation planning.” The strategy further elaborates that as Montana FWP collects and analyzes more data on wildlife movement and migration, this information will be shared and incorporated early and often in land use planning processes.

The seasonal movement of big game species, such as mule deer, is a critical component of their life history that allows them to ensure reproductive success by accessing seasonally available forage and to escape from conditions that are inhospitable to their survival. As such, migratory ungulates require intact landscapes to maintain robust population levels. Land use changes, development, and/or habitat fragmentation often adversely affect these ancient corridors in myriad ways, and once lost they are exceedingly difficult to restore.

² <https://fwp.mt.gov/conservation/strategy-for-wildlife-movement-and-migration>

Overall population estimates for mule deer in Montana FWP Region 2— which includes most of the Lolo NF—have seen a 27 percent population decline in long-term averages.³Montana FWP has conducted migration research on a variety of ungulate herds that, in part, utilize the Lolo NF for their journey. New research shows that crucial stopover habitat on National Forest land, defined as the top 10 percent of the population utilization distribution, play a key role in the migration strategy of mule deer by allowing individuals to migrate in concert with plant phenology and maximize energy intake rather than speed.⁴ Pew encourages the Lolo plan revision to account for this information by coordinating closely with Montana FWP to identify all known corridors and associated habitats and include specific plan components to address and sustain habitat connectivity.

Recommended management tools to address migration and connectivity

Identifying high priority areas for wildlife connectivity allows forest managers to focus on locations with elevated conservation value. Among the priority habitat types necessary to maintain the integrity and functionality of migratory habitats throughout the Lolo NF include: crucial seasonal habitat blocks, high-use migration corridors, stopover habitat sites, birthing grounds, areas utilized by multiple herds and/or species, and travel bottlenecks.

Pew supports the Lolo planning team in undertaking a connectivity analysis similar to the process used in the Custer Gallatin Forest Plan revision process, which relies on the Williamson, et al. study⁵ that developed a connectivity modeling framework specific to the Custer Gallatin National Forest. This modelling effort led to the creation of wildlife “key linkage areas” (KLAs) as a management tool to protect wildlife connectivity. As the Lolo planning team prepares its comprehensive Draft Plan/DEIS, we encourage the team to follow the precedent set by the Custer Gallatin National Forest and utilize the KLA designation to identify and protect wildlife connectivity, particularly for wide-ranging species such as medium to large carnivores and wild ungulates and include specific plan components for wildlife that limit disturbance and habitat alternations.

Recommended Desired Conditions to address big game habitat and connectivity

In order to maintain the integrity and functionality of seasonal and migratory habitat, the Draft Plan/DEIS should include a forest-wide desired condition that addresses big game habitat and connectivity. This desired condition should focus on maintaining or restoring undisturbed blocks of core habitat, migration corridors and associated stopover habitat sites throughout the forest that provide functional security, and abundant forage and cover for populations of big game and other migratory species to move throughout the landscape. These core habitat blocks, and their associated migration corridors, should be avoided by roads and trails and provide effective cover to allow for relatively unabated movement of big game species across the landscape, thus preserving connectivity throughout the forest. Additionally, objectives to remove barriers to connectivity, improve forage conditions, protect intact landscapes, and restore habitat function should be prioritized.

Recommended Standards and Guidelines to address big game habitat and connectivity

To maintain forest wide connectivity and the integrity and functionality of seasonal and migratory habitat, the Draft Plan/DEIS should include standards and guidelines that prioritize the identification and

³ Montana Fish Wildlife and Parks Region 2, Technical Bulletin, October 2021.

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https://migrationinitiative.org/sites/migration.wygisc.org/themes/responsive_blog/images/Sawyer_et_al_2013_JAE.pdf

⁵ *Record of Decision: Custer Gallatin National Forest Land Management Plan*, U.S. Forest Service (January 2022), at 28, 43–44; Williamson et al., *Incorporating wildlife connectivity into forest plan revision under the United States Forest Service’s 2012 planning rule*, *Conservation Science and Practice* 2:15 (2020).

conservation of stopover habitat sites, crucial ranges, birthing grounds, areas utilized by multiple herds and/or species, migration bottlenecks, and other areas where sensitive behaviors occur. Uses incompatible with maintaining functional, permeable habitat that could impair ecological conditions necessary for forest-wide connectivity should be limited. For example, research suggests that elk begin avoiding areas when road densities exceed 0.6 to 0.9 mile per square mile (1 to 1.5 km/sq. km).⁶ In migration corridors, crucial ranges, and other key migratory habitats in the Lolo NF where road densities exceed these thresholds, big game and other migratory species would benefit from reduced road densities through seasonal or permanent closures.

Pew recommends the following standards or guidelines for consideration, either forest-wide or within recommended KLAs and BMAs:

1. Implement a road density standard of one mile per square mile while preventing permanent new road construction and recreational trail development.
2. Prohibit ground disturbance activities in key habitat areas during occupancy and use by big game.
3. Restrict commercial timber harvesting within KLAs and BMAs unless such harvesting is designed in a way that provides a benefit to wildlife habitat.
4. Collaborate with Montana FWP to identify additional priority blocks of core seasonal habitats, stopover habitats, and the migration corridors necessary to connect them.
5. Initiate projects that restore and enhance habitat conditions within the KLAs, BMAs, and identified migration corridors.

Wild and Scenic River Analysis

To date, no wild and scenic rivers have been designated in the Lolo NF. However, as required by the 2012 planning rule, a study has been conducted and the Lolo NF has identified 21 waterways as eligible wild and scenic rivers, including nine that were deemed eligible in 1991 and eight of which were determined to be suitable in 1996. Pew supports these initial determinations and, in addition to these river segments, we recommend the segments below be added to the eligibility list for consideration in the Draft Plan/DEIS. These additional segments are free flowing and possess outstanding remarkable values, including unique recreational angling opportunities, climate refugia, and include important migration routes for fish traversing dams that are unique within the Lolo region. The segments also flow through Pew-identified HEVAS, which are areas that score in the top 10% of our composite ecological value index and that are outside of existing protected areas (i.e., GAP 1 or 2), as mentioned above.⁷ We recommend these additional segments for wild and scenic consideration: Thompson River, Fish Creek, South Fork Fish Creek, and Ranch Creek.

Old Growth

Pew supports the Lolo NF's inclusion of the preliminary proposal from the Forest Service's December 2023 Notice of Intent (NOI) to conserve and steward old-growth forest conditions in order to solicit further feedback from the public on it. Pew submitted a comment letter in response to the NOI, which we are incorporating by reference as an attachment to this letter.

Additionally, in furtherance of the Lolo's forthcoming Adaptive Strategy and to align the management direction in the revised forest plan with this national direction, Pew encourages the Lolo Forest Plan Revision Team to determine the current deficit of old-growth forest conditions as compared to historic conditions by forest type. This information, combined with an understanding of climate change's impact

⁶ Frair, J.L., Merrill, E.H., Beyer, H.L. and Morales, J.M., 2008. Thresholds in landscape connectivity and mortality risks in response to growing road networks. *Journal of applied ecology*, 45(5), pp.1504-1513.

⁷ Conservation Science Partners. 2021. Ecological value of lands in the Lolo National Forest. Final Report. Truckee, CA.

on various forest types, will be critical for establishing restoration targets for old-growth forest conditions in the Adaptive Strategy and determining how mature stands in the Lolo NF should be managed in order to restore a climate-informed and climate-resilient abundance and distribution of old-growth forest conditions.

Conclusion

Pew appreciates this opportunity to provide feedback on the PA at the Lolo NF. We look forward to collaborating with the Forest Service, Tribes, stakeholders, and the public to ensure the Lolo's revised forest plan protects and enhances the unique and important values of the forest for nature and people alike. Please do not hesitate to reach out with questions.

Sincerely,

A handwritten signature in black ink that reads "Nick Callero". The signature is written in a cursive, flowing style with a long horizontal stroke at the end.

Nicholas Callero
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