



Cheryl Probert, Forest Supervisor
Nez Perce-Clearwater National Forests
903 Third Street
Kamiah, Idaho 83536

RE: Draft Environmental Impact Statement on the Revised Nez Perce-Clearwater National Forests Forest Plan — Submitted Electronically April 20, 2020

Dear Supervisor Probert:

Thank you for the opportunity to comment on the Draft Environmental Impact Statement (DEIS) for the Nez Perce-Clearwater National Forests (Forests) revised forest plan (Plan). Crafting a public lands management plan that addresses the concerns of a diverse user group is no easy task, and we appreciate the thought and coordination that has been put into this process. The open house style public meeting format was an effective way to convey information on the plan components to impacted communities, and it was helpful to have the opportunity to speak directly to resource specialists on the issues of most interest to us. As members of the Clearwater Basin Collaborative, we especially appreciate the time the Forests spent discussing the Plan with the group at the CBC's request. This extra insight was invaluable to our understanding of the plan components and analyses and greatly shaped our comments. In particular, we would like to complement Zach Peterson, Megan Lucas, Heidi McRoberts, and Kevin Labrum for helpfully answering questions and providing materials as we analyzed the DEIS.

The Idaho Wildlife Federation (IWF) is Idaho's oldest statewide conservation organization, founded by sportsmen and women in 1936. Today, we represent a nonpartisan voice of 28 affiliate organizations with 45,000 affiliate members and individual supporters who desire to sustain and enhance Idaho's fish and wildlife, conserve their habitat, and maximize sporting opportunity for current and future generations. Our efforts advance "made in Idaho" solutions to the modern challenges of wildlife management.

We will be providing substantial comments on several sections of the plan due to their direct impacts of fish and wildlife populations and habitats. Our perspectives on specific alternative components will be woven throughout our comments, since we do not support any specific

alternative as it stands now. Any questions or responses can be directed to IWF's North Idaho Field Representative, Lizzy McKeag, at lmckeag@idahowildlife.org.

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I. Overall Plan Comments

Management Areas

In the Plan, the Forests are partitioned into three management areas. MA1 consists of areas with national designations, including Designated Wilderness Areas, Wild and Scenic Rivers, and National Historical Landmarks. MA2 includes “backcountry” areas, such as Idaho Roadless Areas, Recommended Wilderness Areas, and suitable Wild and Scenic Rivers. MA3 is considered “front country,” or what is locally referred to as the roaded front, where the majority of public access is located. We appreciate this creative approach for meeting multiple management needs, but also want to stress that natural processes and wildlife should not be hindered by subjective management boundaries. Elk, deer, steelhead, and salmon do not recognize administrative boundaries, but they, and sporting opportunity, will be impacted by the different management actions that take place in each MA. For example, FW-DC-TBR-06 and MA3-DC-FOR-12 indicate restoration in MA3 will rely heavily on timber harvest. While we recognize the contributions of timber harvest to local communities and support this resource use, it is important to recognize that timber harvest has different landscape impacts than wild or prescribed fire, including reduced nutrient inputs, potentially unnatural landscape patches, and input of fine sediments rather than coarse particles into streams, degrading salmon habitat (Elliott and Robichaud 2001, Hudak et al. 2007, Hessburg et al. 2015). Most seriously, connectivity of wildlife habitat through suitable landscapes may be impacted, resulting in disjunct populations (summarized in Bleich 2016). The management strategy in MA3 runs counter to desired conditions FW-DC-TE-06, FW-DC-WL-03, and FW-DC-WLMU-05, which emphasize the importance of habitat patches and wildlife habitat connectivity across the forest to allow for dispersal, gene flow, and species recruitment. When planning for management of the Forests, managers must embrace a holistic approach to ensure the Plan meets the 2012 Planning Rule directive 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... system drivers, fire adapted ecosystems, riparian areas, etc.” (36 CFR Part 219). Activities across all three MAs should be evaluated in this larger context to truly provide for connected wildlife habitat. Managers should review the suggested framework in Mealey et al. 1982, “Solving the Habitat Dispersion Problem in Forest Planning,” which provides information on detailed harvest prescriptions that also promote wildlife habitat and connectivity.

Climate Change

Human-induced climate change may impact the Forests through processes including altered hydrological regimes and more frequent and severe wildfires during the lifetime of the Plan (Stewart et al. 2004, IPCC Climate Change 2014). Impacts to wildlife may include habitat loss, especially for specialist species, and interruption of life history strategies (summarized in Mawdsley et al. 2009). The 2012 Planning Rule directs the Forests to design plan components that will maintain or restore ecosystem integrity while taking climate change into account. Altered disturbance regimes, particularly fire suppression, have led to much of the Forests being outside the Natural Range of Variation (NRV). This altered state has made the Forests less resilient to climate change and catastrophic disturbances, which in turn means fish and wildlife populations within the Forests are vulnerable to climate change effects (Hessburg et al. 2015). We support the Plan’s overarching goal to restore NRV across the Forests using a variety of vegetation treatment methods. This strategy should include substantial aquatic restoration to

support watershed health and benefit Endangered Species Act-listed salmon and steelhead populations, which are vulnerable to climate change (Mantua et al. 2010). Models show that public lands in Idaho, including the Forests, provide vital cold water refugia that may become strongholds for the Northwest’s salmon, steelhead, and bull trout populations in the future (Isaak et al. 2015, NOAA Fisheries 2017).

Emphasis on Restoration

The Forests comprise the largest contiguous tract of wildlife habitat in north central Idaho and support populations of several ecologically, economically, and socially important species. The 2012 Planning Rule states: “[A] planning rule must . . . [e]mphasize restoration of natural resources to make our NFS lands more resilient to climate change, protect water resources, and improve forest health. . . .” (77 FR 21162, 21164). As stated in our comments on climate change, we encourage the Forests to prioritize riparian and watershed restoration across the Forests to produce more resilient landscapes and wildlife populations and to meet the intent of the 2012 Planning Rule. Previous actions on the Forests including unsustainable timber harvest, mining, and fire suppression have all impacted the landscape. Modern project design features, like PACFISH/INFISH, have greatly slowed the proliferation of harmful activities on the Forests. However, these design features do not necessarily improve conditions. Much of this degradation is concentrated in the roaded front country, which includes key salmon and steelhead rivers like the South Fork Clearwater River and its tributaries.

All of the action alternatives analyzed in the DEIS include an increase in timber output over the no action alternative, which ranges from 60 — 80 mmbf in Alternative Z to a departure from the sustained yield limit of 241 — 261 mmbf in Alternative X. All of the action alternatives also include an increase in the pace and scale of watershed restoration (FW-OBJ-WTR-04). However, it’s important to note that the proposed pace of watershed restoration is still well below the projected timber harvest outputs. For example, in Alternative X, watershed restoration will occur on approximately 6% as much area as timber harvest. We believe this number should be much higher, not only to mitigate for effects of increased harvest, but also to undo damage from previous activities on the Forests. Managers should not only work with partners like the Nez Perce Tribe to achieve this but should recognize and take ownership of the need for restoration across the Forests. We are also concerned that current Forest Service staffing and funding levels will make it difficult to reach either of these targets. In a worst case scenario, resources would be prioritized for timber harvest, a revenue-producing activity, over watershed restoration. This would fail to meet the Ecological Integrity directive under the 2012 Planning Rule.

II. Economic Sustainability

Hunting, fishing and trapping (sporting) generates more than \$1.4 billion per year for Idaho’s economy and supports over 14,000 jobs across the state (Director’s Report to the Commission, 2018). In the Clearwater region alone, it’s estimated that steelhead fishing results in \$8.6 million of economic activity per month during the season (data provided by Kathryn Tacke, Idaho Department of Labor). Sporting is also a vital part of the region’s cultural identity.

There are several publicly available resources on the economic impacts of the sporting industry down to the state, regional, and Congressional district levels, including:

- “The Economic Impacts of the Sportfishing Industry.” The American Sportfishing Association- <https://asafishing.org/economic-impacts-of-recreational-fishing/>
- “2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.” U.S. Fish and Wildlife Service- https://www.fws.gov/wsfrprograms/subpages/nationalsurvey/nat_survey2016.pdf
- Outdoor Industry Association- <https://outdoorindustry.org/state/idaho/>
- Local experts:
Kathryn Tacke, Regional Economist for Idaho Department of Labor
Chris St. Germaine, Director of Clearwater County Economic Development

We do not find the current economic sustainability analysis in the DEIS to be complete or accurate because it fails to analyze the effects of each alternative on sporting opportunity and the resulting economic impact. In fact, the DEIS fails to analyze impacts to any industry other than the timber industry, resulting in a misleading picture for decision makers. In Tables 3 and 4 of Section 3.8.1, employment and labor income remain stagnant for Fish and Wildlife Recreation across all alternatives, including the no action alternative. This is despite the Plan’s strong emphasis on improving conditions for valuable wildlife species, such as elk and salmon, which would lead to more sporting economic activity in the region. This economic activity benefits not only outfitters and guides but the region’s entire rural economy: hotels, restaurants, gas stations, bars, coffee shops, and outdoor stores.

As it stands, the economic sustainability analysis does not provide decision makers with accurate information for their analysis and final decision on a Plan that will impact the region for decades to come. The Forests should revise this analysis with publicly available data and expert input on the economic impacts of the sporting industry.

III. Wilderness

Recommended wilderness in the DEIS varies by alternative, with 0 — 10 areas and 0 — 856,932 acres recommended for designation by Congress. All of the areas included for analysis are currently Idaho Roadless Areas (IRAs). What is less clear in the Plan are the exact boundaries of each proposed recommended wilderness area. After conversations with Forest Service staff, it became clear that the boundaries of some IRAs proposed for wilderness designation are not consistent across alternatives. Because of the sheer volume of text in the DEIS, we only became aware of these boundary changes during a Forest Service presentation to the Clearwater Basin Collaborative in February. Considering the controversial nature and importance of wilderness designations, the Forests should add current IRA boundaries to the maps included in Appendix 1 of the Plan so the public can better evaluate the areas proposed for wilderness designation.

Wilderness provides a primitive experience unparalleled by any other land designation in the United States and is greatly valued by hunters and fishermen who enjoy pursuing game in landscapes ‘untrammeled by man’. The lack of human intrusion in wilderness areas protects pristine headwaters habitat and provides connectivity for big game species. The Mallard-Larkins and Hoodoo Recommended Wilderness Areas are occupied by two endemic mountain goat populations in the Black Snow Population Management Unit (PMU), which includes Game Management Units (GMUs) 7, 9, 10, 10A, and 12. Currently, only five tags are available for

harvest of mountain goats in these GMUs, and IDFG considers mountain goats a Tier III species of conservation concern with documented range-wide declines (IDFG Mountain Goat Management Plan, 2019). While surveys in the Mallard-Larkins suggest that population is stable, the Hoodoo herd is declining. IDFG cites snowmobiles, snow bikes, habitat loss, and climate change as threats to mountain goat persistence. In particular, IDFG identifies the need to “Collaborate with Idaho Panhandle and Nez Perce-Clearwater national forests and BLM to minimize potential impact of motorized and non-motorized recreation on mountain goats” to increase mountain goat populations in the Black Snow PMU. This is in line with several studies that have shown mountain goat sensitivity to motorized recreation, and the standard recommendation is at least a 2 kilometer recreation buffer around mountain goat habitat (Côté et al. 2013, St. Louis et al. 2013, Richard and Côté 2015). These effects can be amplified during winter (Larson et al. 2016), when excessive energy expenditures can have deadly consequences for mountain goats in these harsh habitats. Alternative Y would modify the boundaries of the Hoodoo Recommended Wilderness Area to remove approximately 51,000 acres from protection and allow over-the-snow travel in the core of the Hoodoo mountain goat population’s winter range. To protect these mountain goat populations and preserve sporting opportunity, we strongly support the Mallard-Larkins and Hoodoo Recommended Wilderness Areas and oppose any motorized recreation in these areas, including over-the-snow travel. Because of potential impacts to an already declining mountain goat herd, we strongly oppose any border changes to the Hoodoo Recommended Wilderness Area to facilitate motorized recreation, such as suggested in Alternative Y.

The 2012 Planning Rule requires the Forests to protect and maintain the wilderness suitability and character of recommended wilderness areas. The Plan heeds this directive through establishing MA2-DC-RWILD-01, a desired condition that “Recommended wilderness areas maintain their existing wilderness characteristics to preserve opportunities for inclusion in the National Wilderness Preservation System.” Allowing motorized travel, mechanized travel, and mechanized tool use by the public in Recommended Wilderness Areas would fail to meet this desired condition, as well as the intention of the 2012 Planning Rule. We believe Recommended Wilderness Areas should be managed with the same restrictions as Designated Wilderness Areas to preserve their wilderness character until the time of designation. Therefore, we do not support motorized travel, mechanized travel, recreational airplane landing, or motorized or mechanized tools for public use in Recommended Wilderness Areas.

We understand that reduced staffing and budgets have contributed to management issues such as a backlog of trail maintenance and bridge repair in wilderness, which can sour public opinion on the value of these areas. This backlog deters some users from accessing and enjoying wilderness, including sportsmen. For all wilderness areas, we strongly encourage the Forests to make it a priority to leverage partnerships and funding opportunities to contend with the trail maintenance backlog. Creative solutions that involve local partners provide opportunities to build trust and goodwill with the surrounding community and meet the needs of multiple user groups. We would only support the use of handheld motorized tools in Recommended Wilderness Areas for administrative use if there was a clear effort by the Forests to first leverage all available resources to clear trails using traditional methods. Ideally, any motorized tool use would be limited to the early summer when trails are being cleared and fewer users are present in the area,

reducing impacts to solitude and wilderness character. This non-conforming use should not be allowed if it is determined the impacts would reduce the potential for an eventual designation.

Active wildlife management in wilderness areas faces several challenges, including limited access and restrictions on equipment use. However, the sheer volume of wilderness in the region makes these areas critical components of successful wildlife management. We strongly support MA1-GL-WILD-03, which states the Forests will cooperate with the Idaho Department of Fish and Game and the U.S. Fish and Wildlife Service to manage fish and wildlife resources within designated wilderness while protecting the wilderness character as required by the Wilderness Act and each wilderness area's enabling legislation. This goal should also apply to Recommended Wilderness Areas. We encourage the Forests to work creatively and collaboratively with these agencies to study and address wildlife issues in wilderness, including the declining Hoodoo mountain goat herd.

IV. Wild and Scenic Rivers

The Wild and Scenic Rivers Act of 1968 (W&SR) established a national system of protected rivers in response to harmful damming, diversions, and development. Rivers included within the system are recognized for their regionally significant Outstanding Remarkable Values (ORVs), such as exceptional recreation opportunities, fish and wildlife resources, or scenery. Designation of a river as Wild, Scenic, or Recreational confers certain levels of protection against development, including dam building. Projects in Wild and Scenic River corridors receive extra scrutiny to ensure activities are not degrading the ORVs for which the river was designated. This means the W&SR is an appropriate policy tool for enhancing protections for critical salmon, steelhead, and bull trout spawning and rearing habitat found on the Forests. We provide a more in-depth analysis of the threats to fish populations and the impacts of Plan components in **Section VII. Water, Fish, and ARCS**. That section details how crucial habitat within the Forests is for the viability of the Northwest's anadromous fish populations.

The alternatives within the DEIS find between 0 – 36 stream segments eligible for classification as Wild, Scenic, or Recreational. Alternative X, which finds no streams eligible, would instead manage 21 streams in the South Fork and North Fork Clearwater Basins consistent with the Idaho Department of Water Resources State of Idaho Rivers Program direction. These state plans do not have the same regulatory power as a federal designation as they do not explicitly prohibit dam construction. Additionally, protections can be repealed at any time by a vote of the Idaho Water Resource Board and either house of the State Legislature. Therefore, we do not support Alternative X, which substitutes the State of Idaho Rivers Programs for federal protections designated by the W&SR. These enhanced protections will be especially important as the region grapples with the projected future impacts of climate change, which will affect hydrology and is expected to reduce water availability in warmer months. Concurrently, the cold water habitats on the Forests are modeled to provide critical refugia for threatened fish species in the future (Isaak et al. 2015, NOAA Fisheries 2017).

Fishermen from across the nation travel to the Forests to pursue cutthroat trout, salmon, and steelhead on the Lochsa, Selway, Salmon, and Clearwater Rivers. One of the most famous cutthroat trout fisheries is found in Kelly Creek, off the North Fork of the Clearwater.

Designation as a Wild and Scenic River increases appeal for many recreationists, as is seen on the Lochsa, Selway, Middle Fork Clearwater, and main stem of the Salmon. Due to their ORVs for recreation and fish, we support the W&SR suitability of the 12 river segments included in Alternative W. In particular, the pristine salmonid spawning and rearing habitat in John's Creek, Fish Creek, Cayuse Creek, Weitas Creek, and Meadow Creek should be fiercely protected for the future of our fisheries. A national W&SR designation is the best way to accomplish this.

V. Recreational Opportunity Spectrum

The summer and winter Recreation Opportunity Spectrums (ROS) detail which areas on the Forest are suitable or unsuitable for motorized recreation. The ROS seeks to provide a variety of experiences for visitors, ranging from primitive to highly developed. According to a 2016 survey of visitor use, non-motorized use far outweighs motorized use (excluding passenger vehicles) on the Forests, and only 2.6% of visitors surveyed participated in snowmobiling (DEIS 3.4.2-8). However, UTV use is cited as one of the fastest-growing recreation sectors in Idaho.

Both the short-term and long-term negative impacts of motorized recreation on wildlife are well documented, especially for big game species (Taylor and Knight 2003, Côté et al. 2013, St. Louis et al. 2013, Wisdom et al. 2018). These impacts are magnified during winter, when animals rely heavily on stored energy reserves to survive harsh winter conditions (Arlettaz et al. 2015, Larson et al. 2016). Though we understand and value the multiple use mandate of Forest Planning, multiple uses can often be incompatible on the same landscape and may require spatial differentiation (Wisdom et al. 2018). Elk herds throughout the Clearwater Region are declining (IDFG Elk Management Plan, 2014), as is the Hoodoo mountain goat herd (IDFG Mountain Goat Management Plan, 2019). Increasing motorized use on the Forests has the potential to exacerbate the decline of these populations, particularly during winter. We oppose the expansion of semi-primitive motorized access in the winter ROS. Instead, the Plan should comply with the 2012 Planning Rule's directive to properly balance ecological, social, and economic sustainability. To achieve this, we urge the Forests to review existing data and collaborate with partners to identify all areas of critical winter big game habitat and find these areas unsuitable for motorized winter recreation.

Alternative X is the only alternative that significantly increases motorized access under the Summer ROS in the Plan (DEIS pg. 3.4.2-19). The analysis states this is because of the reduction of Recommended Wilderness Areas under Alternative X, even though parts of these areas are currently suitable for semi-primitive motorized use under the No Action Alternative. Regardless of formal land use designations, we do not support a substantial increase in motorized use across the Forests due to the well-documented negative impacts of motorized recreation on wildlife populations. The alternatives also differ in whether semi-primitive motorized use is concentrated in certain areas (Alternatives W and X) or distributed throughout the Forests (Alternatives Y and Z), although no explanation for this is given in the DEIS (DEIS Section 3.4.2). We believe concentrating motorized access in certain areas, while still implementing measures to reduce impacts to wildlife (like FW-DC-ELK-02, MA2-DC-ELK-02, and MA3-DC-ELK-0), may benefit sensitive species like elk. Specifically, this strategy could improve connectivity and security by reducing the overall "footprint" of motorized recreation. To truly be effective, this concept would need to be carried over into the Winter ROS as well.

In **Section III. Wilderness**, we discussed sportsmen’s support for primitive hunting experiences. As such, we believe Recommended Wilderness Areas should be managed with the same public use restrictions as Designated Wilderness to prevent any obstacles to future designation. Both the summer and winter ROS should be modified to reflect this, with only primitive recreation allowed in these wilderness areas. The current classification of semi-primitive non-motorized still allows the use of mechanized travel, which is not allowed under the Wilderness Act. We also recommend modifying the definition for the semi-primitive non-motorized classification to make it clear that e-bikes are classified as motorized use.

VI. Vegetation Management and Timber Harvest

Restoration and Timber Output

Goals for vegetation management and timber harvest in the Plan are predicated on the desire to return the Forests to the Natural Range of Variation (NRV), which has been altered due to decades of poor timber harvest practices, fire suppression, and the proliferation of invasive weeds (Plan pg. 21, Hessburg et al. 2015). These conditions proliferated after the great fires of the early 20th century, which created large swaths of early seral habitat across the Forests that have since senesced. We agree with the Plan’s assertion that the Forests are not in NRV, with the caveat that conditions following the great fires also do not represent NRV. These fires were rare, catastrophic disturbances on a long fire return interval that likely artificially inflated the presence of early seral habitats, along with populations of species that thrive on these early seral habitats. We agree with the Plan’s approach to achieve desired conditions across vegetation types that reflect true historical disturbance regimes and create a mosaic of well-connected habitat patches across the Forest. To promote wildlife habitat connectivity and forest-wide resiliency to climate change, this approach should span management areas.

The Plan relies heavily on timber harvest to reach NRV, especially in MA3. All of the action alternatives analyzed in the DEIS include an increase in timber output over the No Action Alternative (it is important to note that current harvest levels on the Forests are already above levels in the No Action Alternative). Timber outputs range from 60 – 80 mmbf in Alternative Z to a departure from the sustained yield limit of 241 – 261 mmbf in Alternative X. These timber outputs change the rate at which NRV is expected to be reached, from 20 – 100 years. It is important to recognize that timber harvest is not a perfect surrogate for natural disturbance and that managers should embrace all available tools for reaching NRV, including natural and prescribed fire in MA3. Timber harvest has different landscape impacts than wild or prescribed fire, including reduced nutrient inputs, potentially unnatural landscape patches, and input of fine sediments rather than coarse particles into streams, degrading salmon habitat (Elliott and Robichaud 2001, Hudak et al. 2007, Hessburg et al. 2015).

A lack of early seral forage due to departure from NRV is recognized as a major factor influencing the decline of elk populations on the Forests (IDFG Elk Management Plan 2014, Cook et al. 2017). Early seral forage with high levels of dietary digestible energy available in the late summer and early fall is necessary to support winter body condition, high pregnancy rates, and lactation for elk in this region (Cook et al. 2017, Rowland et al. 2018). However, this need for areas of open forage must be balanced with the equal need for dense areas of escape cover

and thermal refugia away from human intrusion (Rowland et al. 2018). Canopy cover also regulates snow depth during the winter, which is a limiting factor for elk (Bergen et al. 2016, Vales et al. 2017). Increasing forage production must be done gradually to allow herd growth to respond; otherwise, the value of this forage is wasted and there is a risk for elk populations to follow a boom-and-bust cycle (Vales et al. 2017). Vegetation management actions should be implemented on an increasing scale that allows populations to respond, while not compromising other resources like escape cover and watershed health. Therefore, we do not support the highest levels of timber harvest in Alternatives W and X. In addition to being ecologically unsustainable, the departure from the sustained yield in Alternative X is economically unsustainable and would further perpetuate the instability of the timber industry in this region.

FW-STD-TBR-11 states, “The quantity of timber that may be sold per decade will be less than or equal to ten times the annual sustained yield limit departure limits... Salvage and/or sanitation harvest of trees substantially damaged by fire, windthrow, or other catastrophe or in imminent danger from insect or disease attack may be harvested over and above the sustained yield limit.” Fire, windthrow, and insect and disease attacks are all natural disturbances that contribute to forest dynamics (Hessburg et al. 2015). As managers evaluate disturbances across the Forests and determine progress towards NRV, natural disturbance should be taken into account as it contributes to metrics like the proportion of vegetation in early seral condition. Levels of natural disturbance, such as wildfires, cannot be ignored when planning active management activities, particularly in the same watershed. Pre-emptive harvest for insect and disease issues should be considered the same way. Therefore, FW-STD-TBR-11 should be modified to state that timber harvested to prevent insect or disease attack may not be harvested above the sustained yield limit and counts towards annual timber quotas.

Please see **Section I. Overall Plan Components-** Emphasis on Restoration for our comments on the need for increased watershed restoration to balance the impacts of increased timber harvest.

The Plan states that MA2, which consists of Idaho Roadless Areas and Recommended Wilderness Areas, will be managed with an emphasis on ecological restoration. We strongly support this direction as the areas in MA2 will be crucial in the effort to improve elk habitat across the Forests. The Forests should use all tools available to them, including responsible timber harvest and prescribed burns, as allowed under the Idaho Roadless Rule, to achieve these goals. Current vegetation management in Idaho Roadless Areas is concentrated around human settlement in WUIs and CPZs. We encourage the Forests to plan projects outside of this narrow focus. When it meets resource goals, wildfire should be allowed to burn in MA2 to assist managers in reaching NRV.

As we have reiterated across these comments, emphasizing timber harvest over all other restoration avenues in MA3 has the potential to alter wildlife connectivity and impact watershed health. We suggest changing MA3-DC-FOR-12 to read, “Natural ecological processes and disturbances are present and used in concert with timber harvest to affect the composition, structure, and pattern of vegetation.” We also suggest removing FW-DC-TBR-06 which states, “Loss of timber value due to wildfire is minimal on lands suitable for timber production.” This ensures MA3 will contribute to the ecological integrity of the forest while still providing for the

economic health of the Clearwater Region. Changes to activities in MA3 can be balanced with more active management in MA2, in line with the directives of the Idaho Roadless Rule.

Old Growth and Snag Retention

Both old growth and snags provide important habitat for a variety of wildlife species. For example, old growth forests provide important winter habitat for elk and moose by reducing snow depth and preserving Pacific Yew understories (Bergen et al. 2016, Vales et al. 2017, IDFG Draft Moose Management Plan 2019). We appreciate the Forests' direction and support MA2 and MA3-DC-FOR-10, which calls for maintaining current levels or increasing old growth, depending on the vegetation type. To align with FW-DC-WLMU-04 and to support declining moose herds in the region, Pacific yew should be included in the first sentence of the desired condition, indicating this habitat type should be maintained *or increased* from existing amounts. Modifications are also warranted for other standards and guidelines addressing management of old growth. MA3-STD-FOR-01 states that vegetation management activities can occur in old growth as long as they do not modify stand characteristics to the extent that the stand would no longer meet the definition of old growth ten years post activity (Plan pg. 36). Theoretically, this means the stand may not meet the definition of old growth for a period of 10 years, but it would reach that status within a decade. Old growth stands naturally occur at low densities across the Forests, in part due to the many decades it takes to reach that condition. It is unrealistic to expect an old growth stand to be heavily modified to the point that it is no longer considered old growth, but to then return to that state within 10 years after the disturbance. Therefore, MA3-STD-FOR-01 should be modified to read, "Within ponderosa pine, western larch, western white pine, Pacific yew, western redcedar, western hemlock, and whitebark pine old growth stands, vegetation management activities shall not be authorized if the activities would likely modify the characteristics of the stand to the extent that the stand would no longer meet the definition of old growth." Likewise, MA2 and MA3-GDL-FOR-02 should be modified to state, "Vegetation management activities may be authorized in ponderosa pine, western larch, western white pine, Pacific yew, western redcedar, western hemlock, and whitebark pine old growth stands only if the activities are designed to increase the resistance and resiliency of the stand to disturbances or stressors and if the activities are not likely to immediately modify stand characteristics to the extent that the stand would no longer meet the definition of old growth." Using the wording "over the long term" in this guideline is too vague and unenforceable (Plan pg. 37).

MA2 and MA3-GDL-FOR-03 states, "To prevent fragmentation of existing ponderosa pine, western larch, western white pine, Pacific yew, western redcedar, western hemlock, and whitebark pine old growth patches, permanent road construction should be avoided in these old growth types unless a site specific analysis determines the route through old growth to be the optimum location and no other alternative location is feasible." Roads facilitate ecological damage, including the spread of invasive weeds and altering hydrology and sedimentation. This realization has led to a region-wide push in recent years to reduce the preponderance of roads on the Forests. While we understand the need to build temporary roads to facilitate projects and timber sales, the construction of permanent roads in ecologically sensitive areas important for wildlife habitat is ill-advised. Therefore, MA2 and MA3-GDL-FOR-03 should be edited to include language stating temporary road building with obliteration should be the preferred course of action over permanent road building in old growth stands.

We support MA3-DC-FOR-11, which recognizes the contribution of snags to wildlife habitat and calls for them to be present across the Forests. This desired condition also correctly states that snags should be unevenly distributed, as clumps of snags more closely mimic natural disturbance and create better wildlife habitat than distributed snags (Saab and Dudley 1998, Eklund et al. 2009, Hessburg et al. 2015). Additionally, different size classes of snags provide for different wildlife species. Some species of cavity-nesting birds prefer larger snags that stand longer while small mammal species benefit from smaller snags that fall more quickly post-disturbance (Eklund et al. 2009). Fisher and Marten both require large snags (> 20 inches dbh) as essential habitat features. The DEIS provides two options for retention of live trees in harvest units to act as future snags (Plan pg. 36). Alternatives W, X, and Y call for leaving a minimum of three live trees per acre ≥ 15 " dbh. Alternative Z calls for leaving a minimum of seven live trees per acre, with a preference for sparing the largest trees in the unit. We believe preserving a variety of trees ≥ 15 " dbh, including some especially large trees, most closely mimics natural disturbance and provides for multiple wildlife species. Eklund et al. (2009) studied multiple salvage harvest scenarios to determine which schemes best balance the needs of wildlife and harvest. They found that a mixture of high density clumps (15 snags/hectare) and lower density random distribution (2.5 snags/hectare) provided for wildlife while also making the salvage harvest operation profitable. We encourage the Forests to consider a management guideline that reflects a similar strategy when planning for live tree and snag retention in harvest units.

Maximum Regeneration Unit Size

FW-STD-TBR-05 increases the maximum regeneration unit size from 40 to 375 acres (Plan pg. 91). This change reflects contemporary project planning needs as the Forests seek to increase the frequency of early successional vegetation patches. At this point, we find it difficult to review or comment on this concept because the analysis behind the change is unclear. After reviewing sections 2.1.3. Forestlands and 5.1 Timber in the Plan and Chapter 3 and Appendix B of the DEIS, which all point to each other, the analysis that led to the 375 acre-value remains unclear. As best we can tell, 375 acres may be the "average forest-wide patch size" in Table 10 of Appendix B. It is unclear which NRV model produced these results, or how the average forest-wide patch size can be so much larger than the PVT-specific patch sizes that follow it in the table. The Forests should provide a clear analysis and justification for this change.

We are very concerned about the final sentence in FW-STD-TBR-05: "This standard applies forest-wide to new harvest proposals on National Forest System lands only and need not consider existing recently created openings on National Forest System, adjacent private, or other agency lands." As we have stated multiple times throughout these comments, wildlife populations are impacted by activities across the Clearwater region (and the Forests' management areas). While the Forests have no authority over activities outside their boundaries, managers should absolutely consider the impacts of management activities on adjoining lands when planning projects. For example, agricultural activities and high levels of harvest on private timber lands in the Dworshak zone have negatively impacted elk, white-tailed deer, and moose populations in this area by reducing security cover and winter habitat (IDFG management plans). The Forests should recognize these impacts and be strategic when planning projects in this area, which will ensure compliance with FW-GL-WLMU-01, "Habitat contributes to wildlife populations at levels meeting Idaho Department of Fish and Game species management plan objectives." We

encourage the Forests to consult with IDFG when designing projects in the Dworshak zone to ensure project goals align with wildlife needs.

VII. Water, Fish, and ARCS

All of Idaho's salmon and steelhead stocks are listed as threatened or endangered under the Endangered Species Act. Spring/summer Chinook are extirpated in the Clearwater River, but the Nez Perce Tribe continues to operate a hatchery program for this species with the goal of providing harvest opportunities. Bull trout, a resident char, was also listed as threatened under the ESA in 1998. Cutthroat trout are not ESA listed but are considered a Regionally Sensitive Species by the Forest Service. For all of these species, habitat loss from anthropogenic activities has contributed to population declines. Climate change will exacerbate current issues as hydrological regimes change and high mountain habitats become thermal refugia for these imperiled fish.

As the largest contiguous land manager in the Clearwater Region, the Forests set the stage for management of these critical fisheries resources. The Plan must recognize this responsibility and provide adequate habitat protections and levels of restoration to support species recovery.

Restoration in Priority Watersheds

The Plan recognizes the importance of diverse and complex aquatic habitats that are spatially connected across the Forests to provide for the recovery of imperiled fish species (FW-DC-WTR-01, FW-DC-WTR-02, FW-DC-WTR-03, Plan pg. 45). The Plan also expresses a desire to move managed watersheds toward reference conditions and to leverage partnerships to fund riparian and watershed restoration work (FW-DC-WTR-04, FW-GL-WTR-02, Plan pg. 45). This is the correct course considering the degradation of aquatic habitats across the Forests due to historical activities including timber harvest, mining, and excessive road building. We encourage Forest Service managers to take the lead on improving watershed health across the Forests. While leveraging partnerships is an important aspect of any natural resource management plan, the Forests should also leverage their own funding and resources to make watershed restoration a priority. Restoration should not just be a by-product of other projects, such as timber sales.

It naturally follows that we believe the Plan should include the highest levels of watershed restoration, including completing work in 20 priority watersheds, enhancing or restoring 400 miles of stream habitat every five years, and improving soil and watershed conditions on 5,300 acres every five years (FW-OBJ-WTR-01/02/04, Plan pgs. 46-47). These objectives happen to fall under Alternative X in the Plan. We do not agree that this level of restoration should only happen as a consequence of the unsustainable timber harvest levels proposed under Alternative X. As we stated before, restoration activities should be prioritized and not dependent on timber harvest projects.

Complexity is an important aspect of fish habitat. In natural systems, large woody debris creates this complexity by altering hydraulics and creating deep, cool pools that fish utilize for cover and thermal regulation (Mossop and Bradford 2004). Until recently, timber practices and human development reduced the amount of large woody debris entering many fish-bearing streams, decreasing complexity and degrading fish habitat. We agree with the Plan's components that

emphasize the importance of retaining large woody debris (FW-GDL-WTR-02, Plan pg. 48) and using the natural activities of beavers to enhance habitat complexity (FW-DC-WTR-09, Plan pg. 46). Beavers are a keystone species whose positive impacts include “higher water tables; reconnected and expanded floodplains; more hyporheic exchange; more diversity and richness in the populations of plants, birds, fish, amphibians, reptiles, and mammals; and overall increased complexity of the riverine ecosystems,” which contributes to high levels of species diversity (U.S. Fish and Wildlife Service Beaver Restoration Guidebook 2018). As an example, the Custer-Gallatin National Forest has documented two decades of positive habitat changes attributable to beaver activity, including contributions to stream channel recovery and floodplain function (Scrafford et al. 2018). Beavers have also proven to be a valuable tool for addressing the impacts of climate change on ecosystems, including increasing drought resiliency of streams (U.S. Fish and Wildlife Service 2014) and providing refugia for wildlife during wildland fires and heat waves (Morelli 2016). It is these benefits which prompted the interagency Climate Change Adaptation and Beaver Management Team to recommend that the Forest Service should increase recognition of beavers in forest planning revisions (U.S. Fish and Wildlife Service 2014).

The Plan only includes one plan component that references beavers, and no plan components that establish the use of Beaver Dam Analogs (BDAs). BDAs are inexpensive, easily installed, in-stream structures that mimic the effects of beavers on aquatic habitats. They can be used in areas without beavers to engineer habitat or to entice beavers to immigrate to an area. We recommend including the following plan components to improve the Plan by fully recognizing the value of beavers on the landscape, especially for fish recovery.

Guidelines:

“To support aquatic habitat quality and resiliency, beaver complexes (including wetlands and riparian areas) should be enhanced or maintained unless their activities directly threaten roads/other human developments, and where such is the case, non-lethal techniques are explored first.”

“To maintain ecological integrity and enhance climate resiliency, restoration of beavers to currently unoccupied but suitable habitat (either through translocation or natural recolonization) is facilitated in cooperation with national, state, and local partners.”

“Where conflicts with beaver habitat and roads and other human development arise in a watershed, resolution will be addressed through management strategies such as pond levelers, beaver deceivers, fencing, and other non-lethal strategies, including live-trapping and relocation. Lethal removal will only be considered after non-lethal strategy options have been exhausted.”

“In areas where beaver recolonization would result in conflict, Beaver Dam Analogs (BDAs) are installed to mimic the habitat manipulation activities of beavers.”

Objectives:

“Allow and encourage beavers to recolonize in new areas throughout suitable watersheds, particularly in high priority watersheds.”

“Over the next ten years, occupied beaver habitat and/or BDA installations will increase by 50% in priority watersheds.”

Conservation Watershed Network

The Conservation Watershed Network (CWN) represents a system of watersheds that receive special management direction and priority status for restoration due to their importance as anadromous fish habitat. The CWN not only includes watersheds occupied by target species, but also adjacent watersheds with high potential for colonization. Per the 2012 Planning Rule, the CWN represents an effort to solidify and clarify standards and guidelines previously enacted under PACFISH/INFISH. PACFISH/INFISH guidelines were enacted in the late 1990s to prevent further degradation of fish habitat from activities on public lands. Importantly, these guidelines were not designed to facilitate habitat restoration- they just held the line on current habitat conditions when they were enacted. The CWN framework rightfully moves the PACFISH/INFISH guidelines forward by emphasizing restoration of degraded aquatic habitats while continuing to mitigate impacts of projects on public lands.

Plan components referencing the CWN (and Riparian Management Zones) should offer the same levels of protection as PACFISH/INFISH to contribute to the recovery of listed fish species while also emphasizing the need for restoration. The Desired Conditions could be improved upon by adding more specific language on the importance of connectivity within the CWN. We suggest editing FW-DC-CWN-02 to read, “Streams within the Conservation Watershed Network provide well-connected habitat that supports robust native fish populations, which are able to expand to and recolonize adjacent unoccupied habitats. These areas conserve key demographic processes and genetic diversity, which influence the sustainability of aquatic species” (Plan pg. 52).

We strongly support FW-DC-CWN-03 and FW-STD-CWN-02, which seek to disconnect the road network from streams and minimize impacts to aquatic resources. Objectives FW-OBJ-CWN-01 and FW-OBJ-CWN-02 support this desired condition by addressing road maintenance within the CWN to reduce detrimental sediment inputs to streams. The Forests should strive for the highest level of maintenance (20% of roads stormproofed every five years), no matter the level of timber output.

Riparian Management Zones

The standards and guidelines that regulate projects in Riparian Management Zones (RMZs) form the core of protections for imperiled fish populations. Aquatic monitoring data on the Forests show that stream conditions forest-wide continue to be in lower condition than those of reference (unmanaged) watersheds, with only three of nine habitat condition indicators improving between 2001 and 2016 (DEIS pgs. 3.2.2.2-17 and 18). Individual subbasins show mixed results since the enactment of PACFISH/INFISH guidelines, with some subbasins improving while others declined (DEIS pgs. 3.2.2.2-19). Meaningful actions need to be taken during the course of the Plan to improve these trends, as the Forests are crucial to the recovery of Idaho’s imperiled fish stocks.

The Plan classifies RMZs based on various characteristics, mainly whether a stream is fish-bearing or not. The Plan rightly extends Category 1 protections to streams that contain fish any time of year, including intermittent streams with seasonal fish use. The RMZ buffer widths

suggested for each category are intended to reduce sediment input from disturbance, provide sources of large woody debris to increase aquatic habitat complexity, and provide shading and temperature regulation. We agree that the RMZ buffer widths listed in the Plan are likely sufficient to protect aquatic habitats and fish. Rather than increasing buffers beyond these levels, efforts should be concentrated on disconnecting the hydrologic connectivity between streams and roads with a priority of decommissioning those roads which create the most sediment input, such as stream crossings or roads that run through RMZs. FW-GDL-RMZ-02 should be strengthened to a standard, not a guideline, to reduce the impacts of roads on RMZs.

FW-STD-RMZ-01 and FW-STD-RMZ-06 are two of the most controversial components of the Plan. In a departure from previous standards, FW-STD-RMZ-01 and FW-STD-RMZ-06 would allow timber harvest and direct ignitions of prescribed fire in RMZs under certain circumstances (Plan pgs. 55-56). These exceptions would occur “only as necessary to enhance or restore conditions for aquatic and riparian resources,” and include fuels treatments, mechanical and hand thinning to achieve vegetation goals, and reducing conifer encroachment into meadows. Essentially, vegetation management activities would now be allowed in RMZs to move riparian areas towards NRV along with other habitats on the Forests. These activities would still not be allowed to occur directly adjacent to streams, with buffer distances ranging from 50 – 150 feet depending on the RMZ category.

Considering the impacts of historical timber harvest on fish habitat, it is not surprising that some are opposed to these new plan components. The confusing wording of FW-STD-RMZ-01 contributes to this reaction. As the standard reads now, it is unclear if timber harvest may be used in RMZs only to enhance aquatic or riparian conditions, or if that is the exception that could be surpassed by the needs of other resource objectives. Language in the Management Approaches appendix suggests the opposite, where timber harvest in RMZs would be used as a tool “only where it is needed to enhance or restore conditions for aquatic and riparian resources... Exceptions to this general rule are allowable for specific silvicultural treatments that are described in detail as exceptions in the standard” (Plan pg. A4-44). We agree that RMZs should be included in the attainment of NRV, and that there may be times when vegetation management in RMZs is an appropriate management tool. FW-STD-RMZ-01 must be edited to clarify the intentions of the standard and to prioritize the enhancement of aquatic and riparian conditions as justification for timber harvest in RMZs, with other activities as rare exceptions. Otherwise, we would find it difficult to support this standard.

Multi-Scale Analysis and Stream Conditions Indicator Assessment

The Multi-Scale Analysis (MSA) and Stream Conditions Indicator Assessment (SCIA) are tools that will be used by the Forests to assess if streams are meeting desired conditions and to recommend project design features that minimize impacts to aquatic resources. The MSA “gathers and integrates available data to place potential actions in context with the next larger and smaller scales, and then identifies conservation measures for aquatic species” (Plan pg. A4-27). The SCIA table will be used to describe current stream conditions and reveal factors that are likely to negatively impact aquatic habitat (Plan pg. A4-29). The Plan intends for these analyses to be driven by existing data sources, with very little project-specific data collection. The majority of factors analyzed under the MSA, and many under the SCIA, will be evaluated

through GIS. The remaining factors to be analyzed in the SCIA would be informed by PIBO monitoring data or a small amount of newly-collected stream data. While not explicitly stated, this stream-lined process is likely a response to current staffing levels and the increased pace of projects expected to occur under most alternatives in the Plan.

We understand that resource management decisions must be made under regulatory or agency deadlines and often with incomplete information. The MSA and SCIA are good starting places for evaluating aquatic habitat needs, but we suggest a reasonable increase in effort that would still use existing data sources to strengthen the analyses. The Forests should consider the following additions:

- Existing occupancy, population, and breeding data of target species should be requested from IDFG and the Nez Perce Tribe and evaluated along with the SCIA to get a clearer picture of watershed health and function. We agree with the Forests' assessment that natural disturbances, such as floods, fires, and landslides, can negatively impact aquatic habitat on short time scales. Watersheds are dynamic, and condition factors may naturally move in and out of acceptable ranges over time. This means it is important to not only assess these condition factors when evaluating projects, but also to measure the ecological impacts of these changes. In watersheds where significant natural or project disturbance has occurred and species data is limited or missing, stricter project design features should be enacted.
- If projects in CWN are to receive more scrutinous analyses than those outside the CWN, these differences should be explicitly outlined in the Plan. We believe the MSA and SCIA should be applied to all watersheds across the Forests, not just those with fish-bearing streams.
- We encourage the Forests to continue consulting with experts and seeking the best method for evaluating sediment delivery risk from projects, which may include some level of ground-truthing. Existing sediment input models fail to identify all sources of sediment within a given project area, but ground-truthing roads and sediment inputs is an extremely time-intensive process (Karen Smith presentation to Clearwater Basin Collaborative, December 2019). The MSA and SCIA does take the right approach by evaluating the roads which are most likely to produce problematic sediment: streamside roads, landslide prone roads, stream crossings, and roads with high modeled sediment delivery risk. Honing a strategy for evaluating sedimentation risk will be essential for increasing project efficiency without compromising watershed function.
- The Plan should include a timeline for how often existing data sources are evaluated against actual conditions and updated. As an example, "Existing data sources for the Multi-Scale Analysis and Stream Condition Indicator Assessment will be evaluated for efficacy and updated as needed every five years."
- The MSA should map all natural disturbances, including fire, insect and disease issues, land slides, and flood history as these all impact aquatic habitat quality. As currently drafted, the MSA only evaluates fire and timber harvest history (Plan pg. A4-28).
- The SCIA should incorporate a measure of connectivity and more explicit temperature measures. Connectivity includes both habitat connectivity for gene flow and floodplain connectivity. Temperature influences key life history stages in fish, and mortality during periods of high temperatures is well-documented (Mantua et al. 2010). The Nez Perce Tribe Fisheries Management Plan (2013) and Mantua et al. (2010) provide temperature guidelines

that could be included for evaluation in the SCIA. In absence of temperature monitoring data, an index of bank shading could be formulated.

VIII. Wildlife

Bighorn Sheep

Bighorn sheep (BHS) are an iconic species in Idaho with significant ecological, cultural, and economic value. Populations greatly declined during the 20th century as a result of overhunting, competition with domestic livestock, and disease (IDFG Bighorn Sheep Management Plan 2010). BHS tags are now highly competitive and prestigious, with Idaho hunters only allowed to harvest one California and one Rocky Mountain sheep during their lifetime. Hunters, rafters, hikers, and other tourists seek out opportunities to view BHS in north central Idaho, especially in the Salmon and Snake River canyons.

Rocky Mountain BHS occur on the Forests in the Lower Salmon, Lower Panther-Main Salmon, Selway, and Hells Canyon Population Management Units (PMUs). Disease is the primary threat to BHS herds on the forests, followed by habitat loss due to noxious weeds and conifer encroachment (IDFG Bighorn Sheep Management Plan 2010). Respiratory diseases, especially pneumonia, lead to high lamb mortality rates and have resulted in population declines. These diseases can be transmitted by domestic sheep and goat herds to BHS, which often exhibit more severe infections than their domestic counterparts. Strict disease management strategies and habitat restoration are essential for recovery of BHS populations on the Forests.

FW-STD-WL-02 reads, “In order to prevent disease transmission between wild and domestic sheep, domestic sheep or goat grazing shall not be authorized in or within 16 miles of bighorn sheep occupied core herd home ranges” (Plan pg. 64). IDFG’s disease management strategy for BHS does not standardize buffer sizes between BHS and domestic herds. Rather, it relies upon coordination between biologists and sheep and goat producers to mitigate risk through best management practices and lethally remove BHS when contact is suspected (IDFG Bighorn Sheep Management Plan 2010). In response to litigation regarding the BHS plan components in the Payette National Forest (PNF) forest plan, the PNF enacted measures that are more stringent than the IDFG guidelines to maintain separation between BHS and domestic sheep and goat herds (Record of Decision for Bighorn Sheep Viability Amendment 2010). Since BHS on the Forests exist within a metapopulation that includes herds on the PNF, FW-STD-WL-02 aligns the Forests with guidance on the PNF. According to the PNF 2015-2017 monitoring plan, these more stringent measures have been successful at limiting interactions between BHS and domestic sheep and goat herds on the PNF (PNF Biennial Monitoring and Evaluation Report 2018). Therefore, we support FW-STD-WL-02.

Domestic goats used for packing represent another source of disease transmission for BHS. Studies have shown that lungworms and *Pasteurella* have been transmitted between individuals of the species, with evidence of goats being the initial host (Rudolph et al. 2003, Foreyt et al. 2009). FW-GDL-WL-05 states, “New authorizations and permit reauthorizations for domestic goat packing should include provisions to prevent disease transmission between domestic goats and bighorn sheep” (Plan pg. 64). Without the ability to review these provisions, we must theoretically assume that goat packing would be allowed within 16 miles of BHS core ranges,

counter to FW-STD-WL-02. This ambiguity has the potential to cause conflict due to inconsistent regulations impacting different industries (recreation vs. sheep and goat producers) and ultimately undermines efforts to prevent disease transmission. Like the standard FW-STD-WL-02 for domestic sheep and goat herds, FW-GDL-WL-05 should be edited to clarify that pack goat use will not be allowed within 16 miles of BHS occupied core herd home ranges.

Elk

Elk herds in the Clearwater Region have been declining since the 1990s due to a combination of deteriorating habitat conditions and predation (IDFG Elk Management Plan 2014). The great fires of the early 20th century created a boom of early seral elk forage across the Forests, which has since senesced into a “mid-seral bulge” due to fire suppression and reduced timber harvest across the Forests. Combined with increased predator populations, especially in the Selway and Lolo Zones, these conditions have greatly reduced hunting opportunity in the region. This impact extends beyond individual hunters and affects the local service economy associated with hunting.

We agree with the Plan’s core strategy of increasing early seral forage across the Forests to improve elk populations, which is captured in FW-DC-WLMU-03, FW-DC-ELK-01, and other objectives and guidelines in Section 2.3.2 (Plan pgs. 65-67). This strategy was formulated in response to work by Cook et al. that investigated factors limiting elk populations on the Forests (Cook et al. 2017). The study preliminarily concluded that a lack of high-quality nutrition in late summer to early fall was responsible for reducing pregnancy rates and winter body fat of elk on the Forests, similar to observations in other regions (Rowland et al. 2018). It also produced a heat map of nutrition potential across the Forests, highlighting areas where management actions could produce quality summer/fall habitat with the highest levels of Dietary Digestible Energy (DDE) (Cook et al. 2017, Figure 31). This map shows the northern half of the Forests contain the highest nutrition potential, especially in the North Fork Clearwater area.

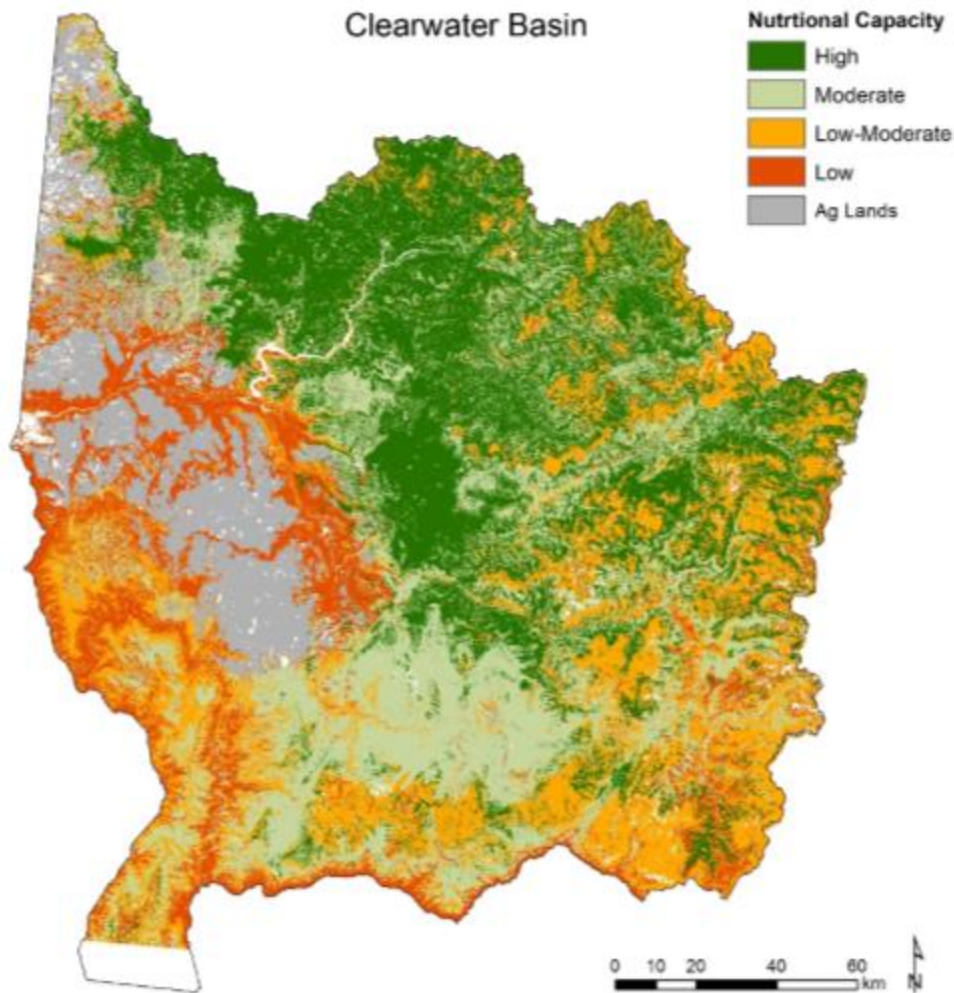


Figure 31 from Cook et al. 2017, showing the rankings of summer nutritional capacity of potential vegetation types in the Clearwater Basin.

Managing for elk populations requires managers to balance the need for openings of early seral forage with areas for cover and security. Ideally, elk would be able to move freely through a patchwork of these two habitat types, with distance to cover minimized (Mealey et al. 1982). The Plan acknowledges this with FW-DC-TE-06 and FW-DC-WL-03, which set a forest-wide desired condition for a mosaic of habitat patches that provide connectivity for wildlife (Plan pgs. 21 and 63). The Plan includes several components that seek to meet this desired condition while controlling for the number one activity that disturbs elk: motorized access. A significant body of research has documented the negative impacts of roads and motorized recreation on ungulates over the past 40 years (Cole et al. 1997, Rowland et al. 2004, McCorquodale 2013, Profitt et al. 2013, Wisdom et al. 2018, and many more). Disturbance from road and trail use can increase disturbance responses, leading to decreased foraging and increased energy expenditure. Frequent road use can cause elk to functionally abandon suitable habitat, moving or reducing home ranges.

Accessible roads can also increase harvest and poaching rates. These impacts are exacerbated in winter, when nutritional resources are limited.

FW-DC-ELK-02, MA2-DC-ELK-02, MA3-DC-ELK-01, MA3-OBJ-ELK-01, MA2-GDL-ELK-01, MA3-GDL-ELK-01 directly address this issue (Plan pgs. 66-67). We strongly support FW-DC-ELK-02, which states a desired condition for elk that “Motorized access does not preclude use of high or moderate quality nutritional resources.” The following guidelines should be edited to better support FW-DC-ELK-02:

- FW-GDL-WLMU-01 should be rewritten because the original wording is weak and unenforceable. Instead of “consider taking action,” the guideline should read “If an issue is identified during project implementation, take action to improve effectiveness of road closures and other travel plan decisions to reduce unauthorized motorized use.”
- As stated earlier in Section V. Recreational Opportunity Spectrum, all critical winter big game habitat should be identified in conjunction with IDFG and found unsuitable for motorized recreation. A standard or guideline should be added to reduce or eliminate over-the-snow travel in big game winter habitat between December 1st and March 15th, similar to FW-GDL-WLMU-03.
- “High-quality” and “moderate-quality” nutritional resources need to better defined in the Desired Conditions for all Management Areas. According to Rowland et al. 2018 (page 14), vegetation that produces 2.6kcal/gram of dietary digestible energy (DDE) is classified as Class 3, “high-marginal” forage that provides “adequate” nutrition. They identified a DDE of at least 2.75 kcal/gram as “good nutrition” that supports high levels of body fat and pregnancy rates. Class 5 “high-good” forage must produce between 2.83-2.90 kcal/gram of DDE. Based on Rowland et al.’s classification system, 2.6kcal/gram of DDE appropriately describes moderate-quality, not high-quality, nutritional resources.
- MA2-DC-ELK-02 should be strengthened to, “A well-connected patchwork of areas at least 5000 acres in size exist without motorized access open to the public to maintain habitat use by elk. Areas of high and moderate nutrition potential remain unfragmented by new motorized trails.” Without connectivity between patches, these individual areas will likely be underutilized by elk, failing to meet the intent of the Desired Condition.
- MA3-DC-ELK-01 should be edited to be consistent with MA3-OBJ-ELK-01 and state that half a mile is the acceptable buffer distance from open roads.

We agree with the approaches outlined in MA2-OBJ-ELK-01, MA2-OBJ-ELK-02, MA3-OBJ-ELK-01, MA3-OBJ-ELK-02, MA2-GDL-ELK-01, MA2-GDL-ELK-02, and MA3-GDL-ELK-01. The Forests should communicate with IDFG regularly to monitor the impacts of these new guidelines on elk populations (see **Section XI. Monitoring** for related comments).

Mountain Goats

Mountain goats are an iconic species in Idaho with cultural and economic significance. Like bighorn sheep, Idaho hunters can only harvest one mountain goat in their lifetime. Some mountain goat herds in the state, like the Hoodoo herd, have seen substantial declines since the 1950s due to overharvest, habitat loss, and ongoing illegal motorized activity. Climate change has the potential to impact this alpine species in a profound way (IDFG Mountain Goat Management Plan 2019). Considering the conservation status of this species, and the high

potential for decisions from the Plan to impact mountain goats, we are concerned that there are no mountain goat-specific plan components. At the minimum, we suggest including a desired condition similar to the following:

“Habitat conditions support mountain goat herds, with an emphasis on protecting documented winter range. Motorized recreation does not negatively impacts mountain goat herd or prevent use of these areas.”

See **Section III. Wilderness** for our detailed comments on mountain goats.

Black Bears

As elk hunting opportunity has decreased in the Clearwater Region over the past several decades, black bear hunting has become a lifeblood of the local outfitting and guiding community. While the Forests do not regulate black bear populations or hunting seasons, they are crucial to the perpetuation of this socially and economically important activity. We ask the Forests to recognize the importance of black bear hunting to the local community and to consult with IDFG and review its most recent Black Bear Management Plan when making decisions that impact hunting opportunity, access for guides and outfitters, or bear management (IDFG Black Bear Management Plan 1999-2010).

IX. Energy and Minerals

Mining has a long history in the Clearwater region and has left widespread evidence of its impacts, particularly on aquatic habitats. In-stream and riparian area mining can cause habitat disjunction, increase sedimentation, reduce the availability of spawning gravels, and release toxic compounds that impact fish populations (Stern 1988, Buhl and Hamilton 1990, Mebane et al. 2015). The preponderance of tailings piles along the South Fork Clearwater River and its tributaries serve as a stark reminder of past dredge mining operations that have degraded critical salmon and steelhead habitat. However, the Forests must allow entry for locatable mineral exploration and extraction under the Mining Law of 1872 in lands that are not officially withdrawn from mineral entry. To limit the impacts of mining across the Forests, particularly in aquatic habitats, stringent standards should be applied to all mining projects.

FW-STD-EM-01 clearly states this need: “Abandoned mining lands and areas impacted by mining activities shall be returned to a state of site condition comparable to pre-mineral activity and provide comparable form and function based on site potential” (Plan pg. 95). However, the four guidelines of page 60 of the Plan are not stringent enough to ensure compliance with standards FW-STD-EM-01 and FW-STD-ARE&M-03 (Plan pg. 59). FW-GDL-ARE&M-01, FW- GDL-ARE&M -02, FW- GDL-ARE&M -03, and FW- GDL-ARE&M -04 should all be written as enforceable standards, not guidelines. Otherwise, mining has the potential to continue impacting critical aquatic habitat for multiple ESA listed fish species, which would retard their recovery.

X. Grazing

Grazing has a long history on public lands in north central Idaho and is culturally and economically important to the region. We support grazing opportunity on the Forests with the addition of standards and guidelines that reduce impacts to other species. Concentrated livestock operations can impact fish habitat by damaging riparian vegetation and increasing sedimentation. There is also evidence that livestock can trample anadromous fish redds, killing fry and impacting already low reproductive rates in threatened and endangered fish species (Gregory and Gamett 2011). We believe the standards and guidelines included in Section 2.2.6 Livestock Grazing (*Aquatics and Riparian*) on Plan pg. 61 will adequately mitigate livestock grazing impacts on fish, with the caveat that they are approved by the National Marine Fisheries Service during Section 7 consultation. The Forests also need to complete annual monitoring to assess if standards and guidelines are being met in all grazing allotments, documenting any departures from desired conditions and adapting management as needed.

FW-DC-GRZ-01 states that, "...Within the planning area, the Nez Perce-Clearwater provides forage for domestic livestock grazing consistent with the capacity of the land to produce sustained forage for multiple uses. This includes transitory forage made available following the reduction in conifer overstory from fire and timber harvest" (Plan pg. 95). The Plan rightly identifies and prioritizes the need to create more early seral forage across the Forests to improve elk populations. To achieve this goal, elk should be given priority use of these early seral resources for restoration projects that occur in core elk range across the Forests. FW-DC-GRZ-01 should be edited to reflect this so it does not conflict with MA2-DC-ELK-01, MA3-DC-ELK-01, MA2-OBJ-ELK-01, MA3-OBJ-ELK-01, MA3-OBJ-ELK-02, and MA2-GDL-ELK-02.

XI. Monitoring

A long-term monitoring program is an essential component of any natural resource management plan and is required by the 2012 Planning Rule. Monitoring allows managers to evaluate outcomes of management decisions and make changes as needed to meet resource goals (adaptive management; FSH 1909.12, chapter 30). In the context of the Plan, monitoring will determine whether or not project standards and guidelines are sufficient for reaching desired conditions. As large-scale public lands managers, the Forests are most interested in characterizing long-term habitat trends and evaluating compliance with different legislative mandates such as the Endangered Species Act (Lindenmayer and Likens 2010).

Monitoring can be expensive and time-consuming, which may conflict with the limited resources and staffing available to managers on the Forests. Therefore, the Forest Service Handbook directs the Forests to "Provide opportunities for public participation, collaboration, and multi-party monitoring in the development and implementation of monitoring for the plan area" (FSH 1909.12, chapter 30, pg. 5). As drafted, the monitoring plan does not leverage these partnerships in a way that allows the Forests to best evaluate management actions and their impacts. For example, MON-WTR-03 poses the question, "What is the status and trend of aquatic habitat?" The question would be answered by assessing trends in stream condition metrics. MON-WTR-03 is meant to evaluate whether the Plan is meeting Desired Condition FW-DC-WTR-03, "Aquatic habitats contribute to ecological conditions capable of supporting self-sustaining populations of

native species... [and] are key contributors for the recovery of threatened and endangered fish species and provide important habitat components for all native aquatic species.” Ultimately, the most important variable for determining whether or not these aquatic habitats are contributing to the recovery of threatened and endangered fish species is left out of this monitoring question. Without evaluating reproductive and rearing success of these species in target watersheds, whether or not conditions are meeting the intent of FW-DC-WTR-03 remains unevaluated. If the Forests do not possess the resources to do simple population monitoring like redd surveys, they should leverage available data from partners like IDFG and the Nez Perce Tribe to evaluate whether or not management actions are contributing to species recovery. Otherwise, the Plan fails to meet the standard of using the Best Available Scientific Information (FSH 1909.12, chapter 30, pg. 5). Therefore, under “Indicators,” we suggest adding language to the effect of, “Trends in reproductive output and success of target aquatic species.” Focusing on reproduction, rather than population size, lessens the effects of downstream impacts (such as dams) on the analysis.

We suggest the following edits to the monitoring plan:

- An actual measure of connectivity or spatial arrangement must be included as an indicator to answer MON-TE-03. Monitoring question MON-TE-03 asks, “What management actions have occurred to provide vegetation patch arrangements for wildlife connectivity?” to evaluate implementation of FW-DC-TE-06 (Plan pg. A3-5). The indicator “acres of treatments that create desired condition” does not adequately answer this question because it does not include a measure of dispersion or connectivity. This can be a simple GIS exercise.
- Another monitoring question, or an additional indicator, should be added to MON-INV-03 to evaluate how projects are contributing to the spread and establishment of noxious weeds. Otherwise, there is no true evaluation of the efficacy of the project design features in FW-GDL-INV-01, which seeks to reduce the probability of establishment or expansion of invasive weeds by prescribing project design features. As written, MON-INV-03 does not get to the heart of the issue: reducing the spread of invasive weeds due to projects on the Forests.
- MON-WTR-10, “Are management actions moving towards the attainment of aquatic and riparian desired conditions?” does not actually evaluate FW-STD-WTR-04 (Plan pg. A3-25). The actual trends in aquatic conditions should be assessed, not the decision making framework.
- Another monitoring question with indicators should be added to assess the ecological impacts of FW-STD-RMZ-01 and FW-STD-RMZ-06, not just the frequency of vegetation management activities in RMZs occur (Plan pgs. A3-28 and 29). Since this is one of the more controversial elements of the plan, more effort should be put into monitoring the outcomes of these actions.
- A monitoring question should be added to review any incidences of disease transmission between domestic sheep and goats and bighorn sheep to evaluate the efficacy of FW-STD-WL-02.
- We are pleased to see MON-WL-10, “What management and unauthorized actions are occurring in mountain goat habitat?” especially since there are no mountain goat-specific components in the Plan (Plan pg. A3-35). An indicator should be included that tracks population trends of mountain goat herds relevant to limiting factors, like unauthorized motorized use.

- Once again, MON-ELK-07 needs to include actual measures of elk body fat (or population growth) from partner agencies to determine if management actions are improving conditions for elk (Plan pg. A3-38). Alternatively, the monitoring plan should add a question to evaluate whether or not management actions are meeting the intent of FW-GL-TE-02, “The Nez Perce-Clearwater cooperates with state agencies, federal agencies, and tribes to develop actions that lead to progress towards meeting other agencies’ objectives for native and desired non-native fish and wildlife species.”
- Monitoring question MON-LND-01 evaluates how conservation easements and rights-of-way contribute to access and meet desired conditions for recreation and restoration (Plan pg. A3-44). An indicator should be added detailing the acreage of public land that becomes “unlocked” due to these actions, in response to public interest on this issue.

XII. Literature Cited

Any literature sources not currently included in the DEIS should be evaluated by managers and included in the body of Best Available Scientific Information.

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