HELLS CANYON PRESERVATION COUNCIL

October 6, 2014

Via E-mail: comments-pacificnorthwest-umatilla-northfork-johnday@fs.fed.us

Ian Reid, District Ranger
North Fork John Day Ranger District
Umatilla National Forest
P.O. Box 158
Ukiah, OR 97880

RE: Scoping Comments for the Ten Cent Wildfire Protection Project

Dear Mr. Reid,

I am writing on behalf of Hells Canyon Preservation Council (HCPC) to comment on the Ten Cent Community Wildfire Protection Project (Ten Cent Project) which proposes commercial logging, non-commercial logging, firewood removal treatment, and prescribed burning within a 38,000 acre project area in the Blue Mountains of northeast Oregon. HCPC is a non-profit conservation organization based in La Grande, OR with approximately 1000 supporters. HCPC's mission is to protect and restore the inspiring wildlands, pure waters, unique habitats and biodiversity of the Hells Canyon-Wallowa and Blue Mountain Ecosystems through advocacy, education and collaboration, advancing science-based policy and protective land management. HCPC actively participates in Forest Service proceedings and decisions concerning the management of public lands within the Umatilla and Wallowa-Whitman National Forests and is an interested public with regards to timber sales and other forest management activities within the North Fork John Day and Whitman Ranger Districts.

Proposed Action

The proposed 38,000 acres project area is located within the Granite Creek Watershed on the Umatilla and Wallowa-Whitman National Forests. 22,400 acres lie within the Umatilla National Forest, 13,700 acres lie within the Wallowa-Whitman National Forest, and 2,350 acres lie within the administrative boundary separating the national forests. The planning area includes 9,500 acres of the North Folk John Day Wilderness.

The proposed action includes 620 acres of firewood/non-commercial logging, 664 acres of firewood/commercial logging/non-commercial logging, 40 acres of commercial logging, 5,162 acres of commercial logging/non-commercial logging, 109 acres of mechanical fuels treatments,

49 acres of mechanical fuels/non-commercial logging, 1,415 acres of non-commercial logging, 6,035 acres of firewood/commercial logging/non-commercial logging along roadsides, 28,482 acres of prescribed burning outside of Wilderness Areas, and 9,557 acres of prescribed burning within the North Fork John Day Wilderness Area. In other words, approximately 12,000 acres is proposed for commercial logging activities with an additional approximately 2,200 acres proposed for other manual (chainsaw) and mechanical (heavy equipment) treatments.

Purpose and Need

The scoping notice states that "the purpose and need of the Ten Cent project is to provide a safer working environment for firefighters while improving probability of success in protecting life and property associated with the adjacent private lands in the event of a wildfire within or threatening the values at risk in the Granite Zone as defined by the Grant County CWPP." The scoping notice further states that there is a need to "modify the existing fuels to reduce potential fire behavior to low intensity and reduce the probability of crown fire and spotting [and to]…modify the predicted fire behavior in the project area while supporting local communities by providing goods and services."

NEPA and NFMA Requirements

The Environmental Analysis Must Contain a Reasonable Range of Alternatives: The National Environmental Policy Act (NEPA) requires that federal agencies provide a detailed evaluation of alternatives to the proposed action in every NEPA document. 42 U.S.C. § 4332; 40 C.F.R. § 1502.14(a). This discussion of alternatives is essential to NEPA's statutory scheme and underlying purpose. *See, e.g., Bob Marshall Alliance v. Hodel*, 852 F.2d 1223, 1228 (9th Cir. 1988), cited in *Alaska Wilderness Recreation & Tourism Ass'n v. Morrison,* 67 F.3d 723, 729 (9th Cir. 1995). Indeed, NEPA's implementing regulations recognize that the consideration of alternatives is "the heart of the environmental impact statement." 40 C.F.R. § 1502.14. The Forest Service must "[r]igorously explore and objectively evaluate all reasonable alternatives" in order "to restore and enhance the quality of the human environment and avoid or minimize any possible adverse effects of [the agency's] actions upon the quality of the human environment." 40 C.F.R. §§ 1502.14(a), 1500.2(f). In this instance, the Forest Service should analyze an alternative that does not propose any temporary road construction, road reopening or use of roadbeds other than officially open roads; does not propose commercial logging or mechanical treatments in old growth stands, riparian habitat conservation areas, and potential wilderness and inventoried roadless areas; and that rests grazing allotments or at a minimum reduces grazing activities within logged and burned areas to allow them to recover post project.

The Environmental Analysis Must Identify the Best Available Science: In addition to NEPA requirements, the National Forest Management Act's (NFMA) implementing regulations require the consideration of the "best available science" for all site-specific projects. 36 C.F.R. § 219.11 (2008); 36 C.F.R. § 219.35(d)(2000). Under the 2008 NFMA regulations, this requires documenting "how the best available science was taken into account in the planning process within the context of the issues being considered;" and "that the science was appropriately interpreted and applied." 36 C.F.R. § 219.11(a). Here, the forest service must consider the best available science including but not limited to the topics of livestock grazing and forest health,

wildlife connectivity, fire ecology, old growth, and roadless areas. In order to meet the best available science requirement please review the literature cited in the reference section of this letter.

The Forest Service Must Assess Cumulative Impacts: NEPA "always requires that an environmental analysis for a single project consider the cumulative impacts of that project together with 'past, present and reasonably foreseeable future actions.'" *Northwest Ecosystems Council v. Dombeck,* 304 F.3d at 895 (citing 40 C.F.R. §§ 1508.7, 1508.25, 1508.27(b)(7) (2001); *Hall v. Norton*, 266 F.3d 969, 978 (9th Cir. 2001); *Kern v. United States Bureau of Land Management*, 284 F.3d 1062, 1075-76 (9th Cir. 2002)). Cumulative impacts are defined as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. *See* 40 C.F.R. § 1508.7, 1508.8. Cumulative impacts may result from "individually minor but collectively significant actions taking place over a period of time." *Id*. Discussion of these cumulative environmental impacts is an essential part of the environmental review process. Such an analysis ensures that the combined environment effects of related actions are evaluated.

Here, the Forest Service is proposing similar projects in areas adjacent to the Ten Cent Project area. These projects include the East Face Vegetation Management Project, the Limber Jim Muir Fuels Reduction Project, the Little Dean Fuels Vegetation Management Project and others. Mining plans of operation within the Granite Creek Watershed are also under analysis. In the pending NEPA analysis please analyze the cumulative effects of the past, present, and foreseeable future actions on the Umatilla, Malheur, and Wallowa-Whitman National Forests including but not limited to those listed above.

Major Actions that Significantly Affect the Quality of the Human Environment: The Forest Service must prepare an Environmental Impact Statement (EIS) for all major federal actions that "may significantly affect the quality of the human environment." 42 U.S.C. § 4332(2)(C). An agency may first prepare an Environmental Assessment to determine whether the action may have a significant environmental effect, thus requiring an EIS. 40 C.F.R. §§ 1501.4, 1508.9. The factors used to determine significance are "context" and "intensity" and include consideration of the unique characteristics of the geographic area, public controversy, the uncertainty of the project's possible effects, and whether the action may adversely affect an endangered or threatened species or its critical habitat. 40 C.F.R. § 1508.27.

In determining whether a project will have a "significant" impact on the environment, an agency must consider "[w]hether the action is related to other actions with individually insignificant but cumulatively significant impacts." 40 C.F.R. § 1508.27(b)(7). If several actions have a cumulative environmental effect, "this consequence must be considered in an EIS." Cuddy Mountain, 137 F.3d at 1378 (quoting City of Tenakee Springs v. Clough, 915 F.2d 1308, 1312 (9th Cir.1990)). Here, the cumulative impacts of other proposed and reasonably foreseeable actions may warrant the preparation of an EIS.

Fuel Reduction Projects

HCPC carefully evaluates projects that propose fuels reduction treatments such as the Ten Cent project against the following criteria:

- **Fuels reduction thinning should be applied only in ecologically-appropriate dry ponderosa pine and pine intermixed with Douglas fir plant association group forests.** This is the only fire-regime where fire suppression has potentially outlasted the range of the fire return interval and therefore stand structure may be outside of a historical condition. These projects should be ecologically constrained by elevation and by site-based evidence of non-lethal surface fire on a short return interval.
- **Protect all trees with old growth characteristics regardless of their diameter or species.** Old growth characteristics include thick bark, colored bark, asymmetrical growth, large braches, and dead tops. These old trees will generally be the some of the most fire resilient trees on the landscape.
- **Protect all large trees.** All trees 21 inches in diameter at breast height (dbh) and larger of all species should be retained. These large trees will generally be the some of the most fire resilient trees on the landscape.
- **Holistic landscape management**, with an awareness of effect of fuels reduction activities on wildlife species, non-native species, soil and soil processes, and insect and disease risks.
- **A compelling ecological need that is clearly identifiable and warrants the proposed action.** Returning stands to the Historical Range of Variability (HRV) alone should not be used as a justification for landscape-scale commercial thinning.
- **Focus on previously logged sites.** Forests that have not experienced the same logging and road-building regime as other federal lands are relatively rare and have high value conservation. Restoration using fire alone is generally appropriate in these stands.
- **Utilize existing roads** for removing and hauling wood products. Eliminate unneeded roads. No construction of new temporary roads.
- **Protect all Inventoried Roadless Areas and Potential Wilderness Areas** as identified in the Blue Mountains Forest Plan Revision process from commercial logging and mechanical activities.
- **Maintain wildlife permeability throughout the project area.** Movement to and from large core habitat areas should be consciously planned for. All roadless areas such as inventoried roadless areas, uninventoried roadless areas and any areas with potential wilderness quality should be protected.

Successful forest restoration strategies must take into account the specific ecology of forests as well as the history of land management activities in a particular place (Crist et al. 2009). Inappropriate application of restoration treatments on a landscape may lead to failed restoration efforts (DellaSalla et al. 2003). HCPC encourages the Forest Service to recognize that in our topographically complex part of the world where mixed conifer forests and variable fire regimes

dominate, managing for a diversity of disturbance intensities is superior to managing for a homogenous forest where low-severity fire dominates.

Based on the information disclosed in the Proposed Action we are unable to tell whether the project is aligned with the above criteria. Details regarding aquatics, wildlife, soils, forest types, structural stages, and proposed treatments needs to be described in the pending NEPA analysis in order for the public to provide informed comments on the Proposed Action. Specifically, the forest type, structural stage, management area must be described for each proposed treatment unit. All proposed activities must be described in more depth. For example, will variable density prescriptions be employed? Will wildlife patches be retained within the roadside treatment areas? Details pertaining to roads must be fleshed out in the pending NEPA analysis. What are the existing road densities in each sub watershed of the project area? What amount of road re-openings will occur? What amount of "historic roadbeds" will be used? What reclamation activities are proposed?

NEPA serves an important role in the decision making process for federal actions that have environmental effects. Through the NEPA process, federal agencies disclose and analyze the potential impacts of a proposed action and reasonable alternatives, as well as measures that could mitigate any potential harmful effects. NEPA brings transparency to the federal decision making process, requiring that other federal, state, tribal and local agencies, as well as citizens, are given a meaningful opportunity to provide comments, helping to ensure federal decisions are better informed. Public involvement during the scoping period helps to identify problems early in the review process. It also increases public confidence the NEPA and can reduce conflicts that may arise down the road. Here, the agency did not disclose in detail what the proposed action consists of and thus did not allow for the members of the public, including HCPC, to provide meaningful comment on the proposed action. Most Proposed Actions on the Umatilla and Wallowa-Whitman National Forests contain much more information allowing the public to provide informed comments. We hope that in the future, proposed actions initiated by the North Folk John Day Ranger District will provide a meaningful opportunity to provide comments and ensure that the district's decision are better informed.

Management Area Direction

Land Use Allocations within the project area on the Umatilla National Forest include A3 Viewshed 1, A4 Viewshed 2, A8 Scenic Area, A9 Special Interest Area, B1 Wilderness, B2 Other Forest, B7, C1 Dedicated Old Growth Habitat, C7 Special Fish Management Area. Land Use Allocations within the project area on the Wallowa-Whitman National Forest include MA-18 Anadromous Fish Emphasis, MA-6 Backcountry, and MA-15 Old Growth Preserve.

The Umatilla National Forest Land and Resource Management Plan (LMP) states that timber management, harvest activities and firewood cutting is not permitted within in MA C1 or MA A9. UNF LMP 4-136, 4-150. The Wallowa-Whitman LMP states that silvicultural prescriptions within MA-18 must be design to achieve fisheries and wildlife objectives; timber harvest may only occur in the event of a catastrophe such as a fire or insect outbreak in MA-6 when doing so would maintain or improve recreational or visual characteristics; and no timber harvest may occur within MA-15. WWNF LMP 4-69 – 4-95.

Despite this management direction, the Proposed Action seems to propose commercially logging in order to reduce fuel loading in Management Areas that do not allow such activity and no forest plan amendments are proposed. All alternatives analyzed must comply with the requirements of the relevant forest plan. Further, in the pending NEPA analysis please disclose what proposed activities in occurring in what Management Area. If activity is occurring within MA A3, A4, or A9, please disclose what viewshed, or special area the proposed treatment is in. Finally, B2 is not a Management Area contained within the Umatilla National Forest LMP.

Historical Range of Variability

The Proposed Action for the Ten Cent project does not describe the Historic Range of Variability (HRV) analysis for the project area. We ask that the pending NEPA analysis for the project to do so. Regarding the usage of historical baselines to guide current management, Millar et al. (2007) states:

> *There is no doubt that historical data have immense value in improving our understanding of ecosystem processes to environmental changes and setting management goals (e.g. Swetman et al. 1999). However, many forest managers also use the range of historical ecosystem conditions as a management target, assuming that by restoring and maintaining historical conditions they are maximizing chances of maintaining ecosystem (their goods, services, amenity values, and biodiversity sustainably into the future. This approach is often taken even as ongoing climate changes push global and regional climates beyond the bounds of the last several centuries to millennia (Intergovernmental Panel on Climate Change, 2007). … Attempts to maintain or restore past conditions require increasingly greater inputs of energy from managers and could create forests that are ill adapted to current conditions and more susceptible to undesirable changes. .*

Mature forests are one example where historical baselines may not be particularly well suited as a measure for improving forest health. Some stands may have more Grand fir and/or Douglas-fir now than compared to historical conditions. However, because of the absence of mature trees in the overall project area due to historical logging, protecting these mature stands regardless of species could be very important for maintaining structural heterogeneity and providing habitat for wildlife. Brown et al. (2004) states:

> *Past management practices may have led to development of old-growth stands with "unnatural" multiple canopy layers or accumulations or snags and logs, but these areas may provide key habitat that compensates for the loss and degradation of these habitat elements elsewhere (ICBEMP 2000; Wisdom et al. 2000). It may often be appropriate to attempt to secure such habitats from wildfire by treating adjacent areas (Agee 1996, 1998). Attention should be given to protecting large and old trees (Henjum et al. 1994, Allen et al. 2002). Large fir trees, especially those with heartwood decay, provide important habitat for many species (Bull et al. 1992, 1997; Bull & Hohman 1993), and efforts to "cleanse" the landscape of true firs should be avoided.*

Certainly, in the project area past and on-going management actions have a very large impact on the type of forest structure available to wildlife today. This is needs to be taken into account in the pending NEPA analysis.

Another example where HRV may not be a good management target is for multi-storied mature forests. These multi-stratum forests are at a higher risk to disturbance than single-stratum forests. Management actions that reduce these multi-stratum forests should be keep to a minimum (Wales et al. 2007). Large wildfire activity is increasing across the western U.S. due to increased spring and summer temperatures and longer wildfire seasons (Westerling et al. 2006). This trend is expected to continue. Since multi-stratum forests are at a higher risk of wildfire activity, Wales et al. (2007) cautions that active management approaches that reduce closed canopy forests could overshoot reductions in HRV.

Old Growth

The reasons for protecting old growth trees and forests continue to accumulate, indicating the life-giving and supporting nature of these complex, interconnected ecosystems. Recent findings have shown the immense value of old growth forests for protecting carbon stores (Smithwick et al. 2002, Luyssaert et al. 2008, Hudiburg et al. 2009, Keith et al. 2009) and for continued accumulation of carbon in soils (Zhou et al. 2006). Old growth forests are not just incredible stores of carbon, they are also key wildlife habitat, sensitive plant species refugia, and biodiversity strongholds. These forests are also a defining and irreplaceable part of our natural heritage and provide our region with a great cultural identity.

The Ten Cent project area contains C1 Dedicated Old Growth Management Area and MA-15 Old Growth Preserve Management Area. Please disclose what treatment if any are occurring in these areas. All old growth forests within the project area are important regardless of their land use allocation and so they should be treated with particular attention and sensitivity as treatment designs are developed during the pending NEPA.

Roads

The scientific literature suggests that mechanical fuels treatments aimed at reducing fire severity have so much inherent uncertainty in their effectiveness that the application should be limited and the most damaging activities such as temporary road building should be avoided (Crist et al. 2009, Noss et al. 2006, Rhodes et al. 2008). The following is an excerpt from "The Watershed Impacts of Forest Treatments to Reduce Fuels and Modify Fire Behavior" by Jonathan Rhodes, 2007.

> *Avoid practices that consistently cause severe and persistent watershed damage, including machine piling and burning and the construction of roads and landings, including "temporary" ones. The numerous negative effects of roads are one of the primary sources of aquatic and watershed damage on a continental scale. Additional road construction is inimical to reducing road effects. It also inexorably adds to the currently insurmountable backlog in needed, but deferred, road maintenance on existing roads (USFS et al., 1993; USFS, 2000b; Beschta et al., 2004).*

Temporary roads are not temporary in impact. Temporary roads left in a state of non-use can have impacts on forests and soils that last for decades. The public often continues to use these roads long after implementation of camouflaging and other activities designed to leave them in a state of non-use. As a result, soil compaction/disturbance and sedimentation impacts will continue to persist. The permanent impacts of temporary road construction have been thoroughly documented (e.g., Beschta et al., 2004; Karr et al., 2004). Such long-term damage has even been acknowledged by the USFS (Rhodes, 2007).

Additionally, the re-opening of closed or unclassified roads for access, and then re-closure following treatment activities has very serious ecological impacts. Extensive and intensive road reconstruction greatly increase road impacts on watershed systems, as documented, very graphically, in Karr et al (2004). Reconstruction impacts are extremely significant because the elevated sedimentation they cause is already ubiquitous water quality problem throughout the West and a major cause of the loss of aquatic biodiversity.

The project proposal indicates that existing permanent roads or historic roadbeds would be used for access to conduct treatment and that currently designated closed roads used in the area would be re-closed following treatment. In the pending NEPA analysis, HCPC requests at least one alternative that does not use any temporary, closed or historic roads requiring reconstruction. We recommend that proposed units that can only be accessed with temporary roads either be non-commercially thinned be dropped from the project proposal and considered wildlife refugia. We also recommend that units that would be accessed using closed roads requiring reconstruction (e.g. brush clearing, blading etc.) be dropped and treated as wildlife refugia or non-commercially treated. An exception would be if there are closed roads or historic roadbeds which are currently causing resource damage and need to be restored. We recommend that all of the roads within the project area be surveyed to identify resource damage problems so that they can be scheduled for restoration. HCPC requests that any alternatives that propose temporary road building include an analysis of the trade-offs associated with the purported benefits of the treatment versus the negative impacts to wildlife, soil structure, hydrology, invasive weed spread, etc from temporary road building and road reconstruction.

HCPC also requests that the open road densities be identified within the project area. Forest Plan standards and guidelines for open road densities within the project area should be attained throughout the Ten Cent project area. If open road densities in the project area exceed Forest Plan direction, the Forest Service should attain acceptable road densities through the design and implementation of the Ten Cent project.

Wildlife

Connectivity: Upon review of 22 years of scientific recommendations it was found that the most frequently cited climate change adaptation strategy for biodiversity management is to increase connectivity (e.g. design corridors, remove barriers for dispersal, locate reserves close to each other, and reforestation). This allows species to adapt through migration, dispersal and movement, but also requires reduction of stressors. Effective National Forest Service planning

and management of public lands should incorporate measures for identifying and protecting wildlife corridors while simultaneously reducing stressors.

One of HCPC's top concerns is the impact of the proposed project on wildlife connectivity. For many of our native wildlife species, survival depends on movement – whether it be day-to-day movements, seasonal migration, gene flow, dispersal of offspring to new homes, recolonizing an area after a local extirpation, or the shift of a species' geographic range in response to changing climate conditions. For most animals and plants, all of these types of movement require a well-connected natural landscape. *See* Western Governors' Association's, Wildlife Corridors Initiative (June 2008 report), p.2. There is abundant scientific evidence that loss of habitat connectivity has profound negative impacts on fish, wildlife and plant populations. Id. at 3 (*citing* Wilcove et al. 1998, Crooks and Sanjayan 2006). Alarmingly, habitat loss and fragmentation is a cause of decline for about 83-percent of U.S. species. Id. at 4 (*citing* NatureServe and TNC 2000). Climate change is accelerating and increasing connectivity is widely recognized as one of the best adaptation measures managers can take. This vital role that habitat connectivity plays in ensuring long-term species' viability and the disastrous effects of habitat fragmentation has inspired a growing call to action to address these issues through big-picture collaborative efforts. A primary example is the Western Governors' Association's (WGA) recent adoption of Policy Resolution 07-01 (adopted February 27, 2007), Protecting Wildlife Migration Corridors and Crucial Habitat in the West and preparation of the Wildlife Corridors Initiative (June 2008 report).

Direction for moving forward with developing increased connectivity and core habitat protection also exists within the National Forest Management Act requires that forest plans provide for diversity of plant and animal communities (16 USC 1604 (g)(3)(B)). The act's current implementing regulations direct the Forest Service to use the plan revision process to maintain and restore ecosystem integrity, including structure, function, composition and connectivity; and ecosystem diversity, to maintain and restore the diversity of ecosystems and habitat types throughout the plan area. 36 C.F.R. § 219.9(a). Where this approach alone is not enough to support a species at risk, the 2012 planning rule requires that plans include additional plan components to provide the necessary ecological conditions to protect wildlife and their habitat. 36 C.F.R. § 219.9(b).

In the pending NEPA analysis, HCPC urges the Forest Service to examine wildlife connectivity needs throughout the project area and surrounding landscape. Movement to and from large core habitat areas should be consciously planned for. All roadless areas such as uninventoried roadless areas and any areas with potential wilderness quality should be protected. The functionality of riparian areas as wildlife corridors should be considered. While not all species would be covered by this approach, these areas are likely natural wildlife corridors where extra large buffers or some other approach would help plan for day-to-day wildlife movement and dispersal needs. The pending NEPA should also include a discussion of how this project may directly, indirectly, or cumulatively diminish habitat connectivity and contribute to further habitat fragmentation. Failing to discuss this critical issue in the NEPA analysis will strongly suggest that the Forest Service failed to take the requisite 'hard look' at the environmental consequences of its actions, as required by NEPA (see discussion of cumulative impacts above).

Finally, the Proposed Action includes 6,035 acres of roadside treatments. Linear clearings within forests, such as the proposed roadside treatments, have an array of negative impacts on forests and their wildlife. While these treatments would occur along existing linear disturbances (roads) they would increase the width of the clearings. Clearing width is directly correlated with adverse impacts to wildlife with narrow linear clearings having less impact. The greater the width, the greater the chance the linear clearings can create barriers to wildlife movement. Please address the science related to edge effect and linear clearings in the pending NEPA analysis. We also request one alternative that eliminates this part of the proposal or significantly modifies it in order to mitigate the impacts on wildlife. All alternatives should include wildlife patches and employ variable density thinning within the roadside treatments.

Direct, Indirect, and Cumulative Impacts to Fish and Wildlife and Wildlife and Aquatic Habitat: The pending NEPA analysis must identify what species were surveyed within the project area and which species were identified as known or likely to occur within the project area. NEPA requires that this information be made available to the public. The pending NEPA should summarize the results of any fish and wildlife surveys and thoroughly discuss the potential indirect, direct, and cumulative impacts of this project on any such species. Monitoring data for the presence of threatened and endangered species ("TES") must be gathered prior to environmental analysis and incorporated into that process. The Forest Service must additionally demonstrate that project level surveys have been conducted and current population data gathered for forest plan Management Indicator Species (MIS).

In some instances, a habitat model may be used as a proxy to determine MIS viability in lieu of surveys. *Inland Empire Pub. Lands Council v. United States Forest Serv.*, 88 F.3d 754, 760 n.6 (9th Cir. 1996). However, where the Forest Service's "methodology does not reasonably ensure viable populations of the species at issue," using habitat evaluation as a proxy for monitoring population trends can be deemed arbitrary and capricious. *See Idaho Sporting Congress, Inc. v. Rittenhouse*, 305 F.3d 957, 972 (9th Cir. 2002). In the absence of an adequate evaluation of the project's impacts on fish and wildlife species, the public is unable to verify whether the Forest Service can reasonably ensure species diversity and viability will be maintained and all legal obligations under the ESA and NFMA will be met.

Climate Resiliency

Readily available science shows that logging results in far more carbon emissions than wildfire. In the pending NEPA analysis please disclose and address environmental impact and management issues related to exponentially increasing climate change, and the critically important role natural and unlogged forests perform in carbon sequestration and mitigation of climate change impacts. Please disclose the impacts of the planned logging upon localized and regional climate change, including the loss of carbon sequestration capability in both the short and long-term.

Grazing

Best available science clearly demonstrates that livestock grazing changes forest dynamics in ways that alter natural fire regimes and vegetative species composition. Grazing reduces the

biomass and density of understory grasses, which otherwise outcompete conifer seedlings and prevent dense tree recruitment. Belsky et al 1997. Grazing has been shown to contribute to a change in natural fire frequencies and intensities. Campbell 1954, Zimmerman et al 1984. In addition, studies have shown that livestock also alter forest ecosystem processes by reducing the cover of herbaceous plants and litter, disturbing and compacting soils, reducing water infiltration rates, and increasing soil erosion. *See e.g*. Allen et al 1989, Belsky et al 1997. Grazing also negatively affects water quality and seasonal quantity, stream channel morphology, hydrology, riparian soils, instream and stream vegetation and aquatic fish and wildlife. *See e.g* Armour et al 1991, Belsky 1999.

In a forested environment, grazing practices can increase woody shrubs and trees by eliminating or reducing competitive grasses, such as perennial grass, and reducing surface fuels that carry low intensity fires across the landscape. Belsky et al 1996, Rosenstock 1996. Similar interactions occur in the sagebrush ecosystems. Livestock grazing of the sage steppe can suppress native herbaceous plants and cause soil disturbance that can favor annual invasive grasses including cheatgrass. This in turn creates a more continuous fuel bed allowing fire to spread more readily across the landscape. This change has resulted in increasingly large fires across sage ecosystems allowing more invasive grasses to colonize, reducing sagebrush, and creating even larger patches of contiguous fuels.

The pending NEPA analysis must acknowledge grazing as an underlying cause of increased contiguous fuels accumulation across the project area. The impacts of grazing on forest health within the project area must be adequately analyzed and new management direction for grazing allotments must be incorporated into Annual Operating Instructions to address impacts of livestock grazing on fuel accumulation and fire behavior. Thus, in the pending NEPA analysis please review and respond to the best available science on this issue identified in the Livestock and Forest Health reference section of these comments. Please describe the extent of grazing in the project area and please disclose and address the cumulative impacts on the project area from logging and grazing. Please consider an alternative that rests allotments or at a minimum reducing grazing activities within logged and burned areas to allow them to recover post project. Please also address whether thinning, logging, and burning prescriptions, particularly within or adjacent to RHCAs, will result in increased livestock access to riparian areas.

Prescribed Fire

HCPC is supportive of the use of proactive fire to restore and maintain natural conditions. However, the ultimate purpose of these treatments should be to allow natural disturbance processes to reestablish. Therefore, HCPC strongly encourages the Forest Service to couple these treatments with wildland fire use plans that allow land managers the ability to let wildfire increasingly perform its natural role. Wales et al. (2007) found that the natural disturbance patterns (as compared to suppression) resulted in the largest amount of all types of medium and large tree forests and best emulated the Natural Range of Variability for medium and large tree forests after several decades. Restoring the natural disturbances regimes and processes is the key to restoring ecosystem functionality. In the pending NEPA analysis, please discuss how the proposed prescribed fire treatments will inform wildland fire use plans on the North Fork John Day and Whitman Ranger Districts. HCPC has been surprised to see the recent aggressive fire

suppression on forest service lands in the Blue Mountains where there is no threat to life or property such as in Wilderness areas. We hope that by drafting a wildland fire plan for the project area as part of the Ten Cent project, wildfire will be managed in a more holistic way within the Granite Creek Watershed.

Non-Timber Based Restoration

HCPC would like to see logging on public lands accompanied by restoration activities. Identification of restoration opportunities should be identified early on in the project development. Where in the project area is road decommissioning needed? Are some roads directly contributing sediment into streams? Are there road decommissioning opportunities that would reduce road densities to forest plan standards? Are there barriers to fish passage that could be removed? Logging on our public lands provides economic benefit to private entities at a great ecological cost. It seems especially appropriate that aquatic restoration activities should be included as part of this project as the majority of the acres in project area are located within Anadromous Fish Emphasis Management Area (MA-15) and Special Fish Management Area (C1).

Native Forest Insects and Diseases

The proposed action does not discuss how or if this will factor into forest treatments. Forest insects and pathogens are increasingly being recognized as important agents in shaping the structure and composition of forests. The forest uses mistletoe, fungi and insects as a way to thin and maintain space between trees. These disturbance processes also recruit dead wood and snags, and provide unique habitat, benefiting many species of birds and wildlife. Removal of these trees has a negative impact on future recruitment of these important habitat features.

In the pending NEPA analysis, please review and respond to the mistletoe science cited in the reference section of this comment letter. HCPC also requests an alternative that leaves diseased trees and those with mistletoe. If the pending NEPA analysis includes alternatives that propose to remove diseased trees and trees with mistletoe, those alternatives should define what is "severe" mistletoe infestation and the historical ranges for mistletoe in the project area. These alternatives should also address how removal of these trees will affect future snag and dead trees retention with regards to habitat needs and historic ranges.

Invasive Weeds

Invasive weed spread is having massive global consequences including reducing biological diversity, altering ecosystem processes, and promoting extinction (Vitousek et al. 1996). Roads and trails serve as corridors for non-native invasions, and logging equipment is frequently cited as the key link in the transport and spread of invasive or noxious plants. In the pending NEPA analysis, the Forest Service needs to disclose what preventative measures will be taken to minimize the risk of invasive weeds. HCPC also suggests that the final project include monitoring of the project area after completion so that weeds infestation sites can be identified and treated before spreading into adjacent areas. We also request an alternative that drops all

temporary road building and road re-construction as it creates disturbed soil conditions ideal for invasive weed spread.

As this project moves forward, HCPC urges development of an alternative that balances fuels reduction needs, restoration of dry forests, and protection of natural resources that will benefit the broadest array of wildlife species and protects all old growth forests (whether designated or not). We request an alternative that protects old growth forests, aquatic resources and wildlife permeability throughout the project area and minimizes road re-construction. Thank you for the opportunity to participate in this planning process and for your review of these comments. Please do not hesitate to contact me with any questions.

Sincerely,

Veronica Warnock
Conservation Director
Hells Canyon Preservation Council
P.O. Box 2768
La Grande, OR 97850
(541) 963-3950
veronica@hellscanyon.org

REFERENCES

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