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First name: Mike

Last name: Petersen

Organization: The Lands Council

Title:

Comments: Please see our attachment for comments on the Sunrise Project, thank you.

Dear Ranger Fujishin,

The Lands Council appreciates the opportunity to comment on the Sunrise Vegetation and Fuels Management Project DEIS. The Lands Council was formed in 1984, with a mission to defend wilderness, protect biodiversity and restore ecosystems to the Columbia River Basin. Inherent in this mission and that applies to this project proposal is the need to restore and protect ecosystems.

The Sunrise Vegetation and Fuels Management Project planning area is located on the Pomeroy Ranger District, Umatilla National Forest. The project analysis area is approximately 32,000 acres identified as National Forest System Lands and is situated in Asotin and Garfield Counties. Below are our specific questions and concerns.

Landscape Restoration

From Page 1-20: The project would include mechanical tree-cutting activities across approximately 7,790 acres. Intermediate tree-cutting would be used to modify the growth, vigor, composition, or structure of a forest stand after its establishment and prior to its final harvest (approximately 5,660 acres). In other areas where thinning treatments alone will not meet landscape vegetation and fuels-related objectives, regeneration harvests (i.e. clearcut, shelterwood, seed tree, etc.) and tree planting would occur (up to approximately 2,130 acres).

We are very concerned that the prescriptions may not be appropriate for this watershed, and contribute to future problems, since it is difficult to determine why units were chosen across the 32,000 acre landscape. Our monitoring of Asotin and Lick Creek clearcuts and road networks dating from the early 90's indicated damage to the watershed and stands had occurred. We do appreciate that the logging in the Lick Creek watershed will consist of removing small diameter trees only (DEIS at I-21).

The Lands Council supports the use of Landscape Evaluations as a diagnostic tool when conducting forest restoration projects. We fully support the project objective to restore forest conditions towards the historical range of variability [ndash] but we have concerns about the level of analysis and use of up to date landscape based approach. We believe that Forest resilience and many other forest landscape functions such as habitat and aquatic function are driven by large-scale patterns of vegetation structure and composition. We note that these references are cited but are unsure how the methods proposed in these papers were implemented in this project:

Churchill, D.J.; Larson, A.J.; Dahlgreen, M.C.; Franklin, J.F.; Hessburg, P.F.; Lutz, J.A. 2013a. Restoring forest resilience: From reference spatial patterns to silvicultural prescriptions and monitoring. Forest Ecology and Management. 291:442-457. doi:10.1016/j.foreco.2012.11.007; Churchill, D.J.; Larson, A.J.; Dahlgreen, M.C.;

Franklin, J.F. 2013b and The ICO approach to quantifying and restoring forest spatial pattern: Implementation guide. Version 2.0. Vashon, WA: Stewardship Forestry. 36 p.

But the rational and primary description of objective #2 includes no mention of landscape pattern metrics. Because the major disturbances (i.e., wildlife fire or insects and disease) within a forest function at a larger scale than the stand-level scale, a stand-level metric alone cannot adequately measure forest resilience to disturbance. Furthermore, tree species are also an essential component of measuring forest health and resilience to disturbance.

We ask for a detailed explanation of how the landscape evaluation was applied as a diagnostic tool for this project. Specifically, we ask that you detail how the landscape assessment was used to develop the following in succession: Landscape Prescriptions, Potential Treatment Areas, Unit Boundaries and subsequently the Unit Prescriptions. If the procedure deviated from the appropriate usage of landscape evaluations, we ask that you include a description as to why as well as an in-person meeting to discuss the matter.

For the Sunrise project, regeneration cutting would include individual-tree selection, group selection, shelterwood harvest, seed-tree harvest, or clearcutting methods. Depending on site and stand characteristics, regeneration cutting methods may result in the removal and/or retention of a variety of tree sizes, species, and density levels; the common element is that substantial amounts of tree germination and establishment are expected following the activity.

We'd like you to consider using the Individuals, Clumps, and Openings (ICO) approach (Larson & Churchill 2012). The ICO prescription includes adding heterogeneity within stands to mimic the natural pattern (Larson & Churchill 2012). Intra-stand spatial heterogeneity is essential for ecological functions and processes. It accurately replicates historical distributions of trees for stand scale areas by creating local and broad heterogeneity (Hessburg et al. 2015).

Variable spacing of the type that would occur with ICO can have many advantages (as summarized by Franklin et al. 2013):

- * Reduces crown fire frequency
- * Reduces the chance of epidemic insect outbreaks
- * Reduces spread of dwarf mistletoe and pathogenic fungi
- * Both the clumps and openings create bird and wildlife habitat
- * Facilitates a multi-aged structure through variable regeneration of age classes in clumps and openings
- * Increases abundance and diversity of understory vegetation
- * Increases snow retention thus affecting soil water, understory vegetation and fuel moisture, which is especially important due to the impact of climate change on snowpack.

In the section about Optimality of Clearcutting (3-229) we find this statement:

All silvicultural prescriptions recommending a clearcutting activity would do so only if it is found to be an activity of last resort [ndash]only proposed when no other intermediate (preferred) or regeneration cutting method to meet stand management objectives would be appropriate or compatible with existing stand conditions.

A major factor in this determination would likely be the presence or absence of a sufficient number of acceptable seed trees. This means that clearcutting would be proposed only when the silvicultural prescription for a given stand shows a clearcutting method would accomplish Forest Plan objectives that cannot be accomplished through other cutting methods.

Finding: To the extent practicable, clearcut units would be shaped and blended to emulate the analysis area's natural terrain (see project design criteria).

While we agree that restoration of early seral species such as Ponderosa Pine and Western Larch need a certain amount of openings, we believe that the Individuals, Clumps, and Openings method mentioned above would better achieve the objectives of restoration, while increasing heterogeneity and increasing protection for many species of wildlife.

Roads

The Lands Council supports and encourages road decommissioning, obliteration and culvert replacement to reduce hydrological damage, restore fisheries and improve wildlife habitat.

According to the DEIS: All system roads would remain the same after project implementation; closed roads would continue to be closed, and open roads would continue with preexisting designations. Approximately 14 miles of temporary roads would be constructed, of which 8 miles would be constructed over previous road templates.

We ask that constructed temporary roads are less than $\frac{1}{2}$ mile in length to reduce the potential impact to aquatic resources and wildlife. How will temporary roads be decommissioned and/or obliterated and what is the subsequent monitoring protocol?

We ask that unauthorized roads be considered in the minimum road analysis due to their potential detrimental impacts on the watershed. We also ask that you provide many miles of road currently exist within the project area including system roads, temporary roads, and unauthorized roads.

Open road impacts on elk and other species makes us favor Alternative C, for example:

Cover is currently limited along this road, due to natural openings as well as past harvest. Alternative B proposes treatments along the entire length of this road, and much of it on both sides of the road. A substantial amount of canopy cover and hiding cover would be removed with regeneration harvest and thinning. Alternative C also maintains 200 more acres of cover along this road than Alternative B.

The earlier closure date in Alternative C would provide additional elk security during late summer and fall, a time when elk are putting on weight to last through the winter. It would also potentially reduce elk movements onto private land.

With regards to fish species:

Temporary roads would be decommissioned after use. Decommissioning would reduce sediment potential and help restore infiltration capacity. Decommissioning may include blocking, ripping/scarifying, seeding, and possible mulching with emphasis to improve hydrologic soil function. BMP monitoring of decommissioned temporary roads would be performed to help ensure resultant erosion is reduced to background levels.

We encourage adequate closures on decommissioned and temporary roads such as line-of-sight obstructions and that this be stated in the decision, vs the term [ldquo]may include[rdquo]. We ask the temporary roads be obliterated promptly after the project is complete and are subsequently monitored for unauthorized use and detrimental hydrological impacts. We maintain that to be ecologically effective, these roads must be decommissioned in a manner that goes well beyond the standard procedure for closure of level-1 roads, which is often ineffective in preventing illegal use by OHVs.

Hydrology & Fisheries

We support the inclusion of aquatic restoration in the purpose and need of this project. This supports one of the stated objectives of the project to "maintain or improve water quality and watershed function."

Our preference would be a spatially explicit watershed scale aquatic assessment that considers the inclusion of the following:

- * LiDAR data rectification of stream network.
- * LiDAR data rectification of transportation network, including all non-authorized roads
- * Stream habitat surveys to fill any data gaps using USFS required methodology. Shall include assessment of instream habitat, floodplain condition, and riparian functions and dynamics (including impacts/impairments).
- * Geomorphic assessment to fill data gaps, including evaluation of effects of human modifications on stream geomorphology and process (e.g., road-stream interactions); channel morphology and evolution trends; substrate analysis; channel, floodplain, and habitat dynamics; and large woody debris functions.
- * Fish densities/population characteristics and biological processes (food webs, predation, etc.)

- * Sediment transport and storage, including contributions/impacts from roads and land use practices (e.g., timber harvest, grazing, etc.). The analysis will likely include GIS-based raster analysis, hydraulic modeling, and/or appropriate alternative methodology.
- * Watershed hydrologic regime and influencing factors (e.g., snowpack, water withdrawals, landscape features, groundwater dynamics, etc.), which may include hydraulic modeling/simulation.
- * Water quality evaluation, including potential impacts and impairments.
- * Wetland distribution and function
- * Beaver habitat enhancement potential, including evaluating the feasibility of beaver relocation using Beaver Restoration Assessment Tool (BRAT) (or similar) and application of Beaver Dam Analogs to facilitate stream process restoration, habitat enhancement, and water storage.
- * Climate change assessment, including impacts on watershed processes and habitat.
- * Reach-based Ecosystem Indicators (REI) metric calculations for additional areas of habitat and geomorphic surveys (i.e., areas not covered by recent surveys).

Prescribed Fire

The approach the Pomeroy District typically applies to dry forest stands—understory thinning followed by broadcast burn—bears resemblance to natural dynamics in these forest types where frequent fire kept fine fuels in the understory in check, thus reducing fire intensity and mortality in overstory trees. However, approaching mesic and moist forest stands in this manner differs significantly from natural dynamics in pre-suppression stands, where fire was less frequent, understory fuels typically more abundant, and mortality of overstory trees significantly higher.

We request that this approach to prescribed fire in mesic stands be expanded on the Sunrise project. While we understand the socio-political resistance to higher mortality fire, the enormous block of mesic forest within the project allows for more variety in the approach to prescribed fire in mesic stands.

We recommend building the following components into the prescriptions with guidance from the landscape evaluation to allow the post-harvest prescribed fire and the post-fire condition of the stand to more closely emulate and reflect the stand's historic fire regime:

- * Variation of patch size
- * Variation of patch shape
- * Variation of patch edges (more feathering, less edge effect)
- * Untreated patches
- * Consideration of the function of slope, aspect, and valley orientation on fire behavior
- * Retention of significant biomass (both live and dead) in mesic stands prior to prescribed fire
- * Unless there are significant extenuating circumstances, do not utilize "pile and burn" slash treatment

Roadless Areas & Potential Wilderness

The Sunrise project area contains the entire Asotin Creek Inventoried Roadless Area (IRA) and is adjacent to Wenatchee and Tucannon IRAs.

We are concerned that impacts to roadless areas are part of both action alternatives:

Alternatives B and C would have some minor and short-term, negative impacts within areas undergoing timber treatment.

The Asotin Creek IRA and PWA Description: The Asotin Creek IRA (16,433 acres, which amounts to approximately 50 percent of the project area) and PWA (16,181 overlapping acres) includes the headwaters of the North Fork Asotin Creek. Almost the entire drainage is within the forest boundary. Bounded on the east by the Forest Boundary, this area may be accessed from numerous local roads emanating from Forest road 41 on the north side, Road 40 on the west side, and Road 44 on the south side. The trailhead for Trail 3125 is located five miles downstream on State lands.

The resulting effect for Alternative A would be about a 1% reduction to the PWA. Under Alternative B approximately 186 acres of the Asotin PWA would be affected by cutting and associated activities (such as new temporary road construction). Under Alternative C about 29 acres would be affected. Under Alternative C there would be less than a quarter of 1 percent reduction to the PWA. These acres would no longer meet PWA inventory criteria because timber harvest and creation of stumps would make them appear developed.

It is not clear to us why the IRA and PWA have different acreages and why 186 acres under Alternative B and 29 acres under C would be impacted [ndash] when it seems road construction or timber harvest will not take place in the IRA? Please clarify.

We ask that all roadless and potential wilderness areas be maintained and managed in a manner that does not preclude them for inclusion in the National Wilderness Preservation System (NWPS). TLC does not support any reduction in acreage currently eligible for inclusion in the NWPS.

Insect & Disease Disturbances

We ask that insect & disease disturbances be analyzed through the landscape evaluation process for this project. In the landscape evaluation process, the levels of insect and disease disturbances on the landscape are compared to the historical range of variability.

Wildlife

As stated in the DEIS:

Alternative B would result in a considerable change of forest conditions in the area, affecting wildlife in various ways depending on the species. The distribution of elk cover would be less than desirable. A substantial amount of old forest would be affected by changing it from OFMS to OFSS. Creating more resilient forest through stand density reduction, fuels reduction and landscape burning would overall benefit most species in the long term.

Alternative C would change forest conditions but at a lesser magnitude than Alternative B. The balance of improving habitat for some species (e.g. increases in dry OFSS) and decreasing the amount of habitat for other

species (e.g. marten, elk cover) is more in balance, while still reducing fuels to a more natural level.

We note the discussion in the DEIS of how various alternatives will affect the viability of listed, sensitive, MIS, cornerstone, and focal species. While there is discussion, including of various species of woodpeckers, we are not sure of current populations? We found this interesting statement on 3-93, but note it was from a survey taken over 25 years ago:

Dedicated Old Growth areas are generally providing good habitat for pileated woodpecker forest wide. In 1992, biologists surveyed 100 Dedicated Old Growth areas in the Blue Mountains, including 20 on the Umatilla National Forest (NF). All of the areas surveyed on the Umatilla NF (100%) were occupied by pileated woodpecker at that time (Bull and Carter 1993). The current forest management emphasis on retaining large trees and old forest conditions is beneficial to pileated woodpecker. We look forward to an analysis of actions that might improve habitat in the area so that recovery is feasible.

Regarding Goshawk, we wonder when this survey mentioned on 3-99 will take place:

Goshawk surveys will be conducted in areas of high potential that may be affected by project activities. The Eastside Screens (USFS 1995) provide for specific protections for goshawk nesting territories. If active nests are found at any time, they would be protected as specified in the project design criteria
Economics
Alternative B would produce approximately 25 mbf and Alternative C would produce approximately 12 mbf and contribute to the economic stability of nearby communities by providing forest products. In looking at Net Present Value (pp 3-218-320) we find it interesting that Alternative B has a larger NPV than Alternative C and wonder if that is due to the higher road construction in Alt B?

Net Present Value Alternative B

Present value for the stumpage and additional costs for this alternative were \$2.09 million and \$2.89 million for a net present value of negative (-) \$800,000.

Net Present Value

Present value for the stumpage and additional costs for this alternative were \$1.06 million and \$1.78 million for a net present value of \$720,000. Note that we think this should be - \$720,000. Livestock grazing
The DEIS states that there will be a dispersal of grazing, which could lessen impacts on specific areas, but also: The effects of the approximately 240 acres of proposed riparian fuels treatment in the RHCA may result in cattle drawn into the new established forage near water. These areas would be monitored to minimize negative effects from this activity. We would like to see protective measures in place before any negative impacts occur, as well as a discussion of whether those impacts include streambank damage, water quality or impacts to riparian plants. Snags and Wildlife Trees

We request that all snags larger than 20" DBH be retained during the project (unless they pose a significant safety risk). Old snags are rare on the landscape and provide habitat for numerous species of wildland. Large old snags will eventually become large downed woody debris, which create more habitat for wildlife and microclimates for plant species. Many animals evolved with higher levels of snags on the landscape while timber management and fire suppression have decreased the abundance of snags.

The adequate number of snags per acre for wildlife species is variable and highly dependent upon the surrounding landscape pattern. However, DecAID, the Decayed Wood Advisor for Managing Snags, Partially Dead Trees, and Down Wood for Biodiversity in Forests of Washington and Oregon (<https://www.fs.fed.us/r6/nr/wildlife/decaid/>) can be used to determine an estimate. For example, DecAID recommends 6 -17 snags per acre >20[rdquo] DBH in a post-fire structural type in the Eastside Mixed Conifer Forest N Cascades/Rocky Mountains as a 50% tolerance level.

Thank you for the opportunity to provide input on the Sunrise project.

Sincerely,

Mike Petersen

Executive Director

The Lands Council

25 West Main, Suite 222

Spokane, WA 99201

509-209-2406

mpetersen@landscouncil.org