WILDERNESS
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Via electronic web submission to:
https://cara.ecosystem-management.org/Public/CommentInput?Project=52653

November 5, 2018

Dear Ms. Limberis and Mr. Warner,

Please accept these comments on the Notice of Proposed Action (NOPA) for the County Line Project from Wilderness Workshop and Rocky Smith.

Wilderness Workshop (WW) is a 501(c)(3) dedicated to preservation and conservation of the wilderness and natural resources of the White River National Forest and adjacent public lands. WW engages in research, education, legal advocacy and grassroots organizing to protect the ecological integrity of local landscapes and public lands. WW focuses on the monitoring and conservation of air and water quality, wildlife species and habitat, natural communities and lands of wilderness quality. WW is the oldest environmental nonprofit in the Roaring Fork Valley, dating back to 1967, and has a membership base of over 800. Many WW members live near, work on or by, recreate and otherwise use and enjoy lands managed by the White River National Forest, including the areas within and adjacent to the County Line Project area.

I. INTRODUCTION

The proposed project has the potential to treat nearly 17,400 acres within a project area landscape containing 33,300 acres of national forest lands. NOPA at 1, 4. Portions of the area have been treated in the past and the larger landscape has a number of other existing uses including grazing, oil and gas storage and recreation. Thus, the proposed treatments may have cumulative impacts with past and existing activities. It is therefore important to disclose cumulative impacts from past, present, and reasonably foreseeable future projects. These impacts include, but are not limited to: forest cover, wildlife habitat, watershed integrity , soils, and scenery. Such disclosure is required by the National Environmental Policy Act – see 40 CFR 1508.7 and 1508.2(a) and (c).

II. SOME OF THE PROPOSED ASPEN CUTTING MAY NOT BE NEEDED

The project proposes to cut 538 acres of aspen in 11 units NOPA at 5. Before approving these units the Forest Service should consider whether such treatment is needed in every unit. Field examination of the proposed aspen units by Wilderness Workshop staff revealed that most of the aspen stands in the proposed units have only a small amount of trees in the seedling or sapling size class. However, a number of the units do have more than one age class, often consisting of small trees.

While cutting older aspen stands will almost certainly increase the amount of younger age class on the landscape, decadent aspen stands also contain important ecological benefits, as they provide opportunities for primary cavity nesting birds to excavate nests. One species dependent on cavities in aspen trees is purple martin. (See more detailed discussion in section V below.) An aspen stand transitioning to spruce-fir constitutes natural ecological succession and this forest structure provides a good ecotone for many wildlife species that can live in either aspen or conifer forests.

A recent lack of disturbance on the landscape, due to human caused fire suppression likley resulted in a greater acreage of mature aspen stands across parts of the Forest. While coppice cuts will result in a new young class of aspen, the Forest Service should apply this technique on a limited basis for several reasons outlined below.

First, as described in the Forest Plan, the landscape of western Colorado and the White River National Forest may contain a historically high percentage of aspen stands as a result of previous land-use patters:

> *"Based on the high magnitude of the disturbances that occurred within a relatively short period of time [between 1870 and 1910], existing seral aspen is thought to be at the high end of [the historic range of variability] for overall coverage of the landscapes of the White River National Forest*." Forest Plan FEIS at D-34.

The Forest service needs to be very clear about which baseline it is seeking to restore towards and should design management actions to keep the forest within its historic range of variability rather than picking a specific point in time to try and mimic with current conditions.

Secondly, the climate and disturbance regime of our forest is constantly changing, and while there has been less fire over the past 100 years due to fire suppression, it is likely that climate change will increase the amount of disturbance on the landscape in the future. Forest fires and insect and disease outbreaks are likely to significantly increase the amount of disturbance across the landscape, with the result of more young aspen stands on the Forest.

Lastly, while coppice cuts and mechanical treatments can be an effective tool to mimic natural disturbance, they have greater unintended and damaging consequences than natural processes like fire. Mechanical treatments are generally costlier, require much more road construction and/or use, create impacts from skid trails and reproduce natural outcomes of disturbance much less well than prescribed fire. For example, fire is more likely to remove small stems and leave large stems, while mechanical treatments (especially those designed to produce timber products) are more likely to remove large stems and leave small stems.
We support the extensive use of prescribed fire proposed in this project. The Forest Service should analyze an alternative that seeks to achieve the project goals through greater use of prescribed fire.

Some of the proposed coppice units are composed of aspen stands with little to no conifer encroachment. These include units 202, 206, and portions of 201. While there is not significant new aspen regeneration occurring in these units, presently they do contain a number of smaller aspen stems. The Forest Service should determine whether these smaller size-class trees are transitioning to larger stems and/or providing forage before cutting the stands.

The Forest Plan FEIS states, "Some portions of the forest historically maintained stable, self-replacing aspen stands, and landscapes, over long periods of time." Id. at D-35. The Forest Service should identify all stands within the project area that meet these criteria and prioritize mechanical treatments in other areas.

Clearcutting aspen stands that are significantly invaded by conifers may not always result in widespread aspen regeneration. Long-term conifer growth will tend to increase the acidity of the soil pH, favoring conifer regeneration and growth, and inhibiting aspen sprouting and growth (Cryer and Murray, 1992). The Forest Service should thoroughly assess stands with a high percentage of conifer presence before conducting coppice cuts as there is a reasonable chance cutting those stands would hasten the conversion to conifer. That would not remedy the project's stated need of increasing young aspen stands. (See NOPA at 2, first bullet under "The proposed action is needed because…".) Specifically, the western portion of unit 204 and units 205 and 208 are composed of over 50% conifer stems. However, burning these stands would help reestablish the proper soil pH for aspen regeneration and retention (Cryer and Murray, 1992).

III. ASPEN REGENERATION MUST BE PROTECTED FROM ANIMAL BROWSING

Young aspen regeneration is highly desired forage for wild ungulates, i. e., deer and elk. In fact, these animals can heavily browse regenerating aspen stands, and threaten reestablishment of aspen on the site. Livestock such as cattle and sheep also eat aspen shoots, and they will easily trample young aspen trees, also reducing the probability of successful regeneration. The NOPA indicates this is already a problem because "growth rates are hindered and mortality rates are high due to grazing and foraging pressure from cattle and wildlife". Id. at 1. See also Plan FEIS at D-36, which noted that there are "localized areas…where regeneration is struggling due to the impacts of browsing by native herbivores and domestic livestock".

Both cattle and ungulate species are likely to create significant browsing pressure on new aspen stems that regenerate following coppice cuts in the project area, reducing the amount of successful regeneration. Research into these impacts found that livestock and ungulate pressure together resulted in significant "utilization of aspen and terminal bud removal."[1] The study concluded that proper livestock management is essential to regeneration of aspen following removal of the older stands."[2] To ensure the success of aspen regeneration following coppice cuts, the following project design feature should be included in the EA to minimize impacts of heavy browsing on aspen regeneration:

- The EA should determine if certain units are more likely to be susceptible to over-browsing as a result of their location relative to grazing patterns, or if isolation from other units would increase cattle and elk browse on a particular unit.
- Pile slash around the edges of coppice units to discourage cattle and ungulate browsing.
- Conduct coppice cuts and prescribed fire treatments within the same year or conduct coppice cuts following prescribed fire. This will ensure that at a landscape level there is

[1] Smith, A. D., Lucas, P. A., Baker, C. O., & Scotter, G. W. (1972). The effects of deer and domestic livestock on aspen regeneration in Utah. Utah Division of Wildlife Resources. Logan, Utah, (Publication No. 72-1).
[2] Ibid.

sufficient new aspen regeneration across the project area to disperse cattle and ungulate browsing and ensure that no single stand is over-browsed, or if one stand is heavily impacted, others are not.

- Require regeneration surveys in coppice cuts to estimate damage from cattle and ungulate browsing. If browse reaches a threshold of approximately 50% of the sprouts across 50% of a given unit, the Forest Service must coordinate with grazing permittees to limit further damage. Methods to reduce or eliminate damage to sprouts should included salting, modifying cattle rotations, or other strategies developed by agreement between the Forest Service, the permittee and other partners.

IV. PRESCRIBED FIRE SHOULD BE THE PRIMARY METHOD TO ACHIEVE PROJECT OBJECTIVES

Wilderness Workshop supports the use of prescribed fire to restore disturbance across the landscape. We believe the high percentage of acreage proposed to be burnt relative to mechanical treatments is appropriate as prescribed fire is a more effective, ecologically sound, and less expensive treatment option, especially in the remote back-country setting of this project. Where possible, the Forest Service should prioritize prescribed fire over mechanical treatments to achieve project goals. While providing biomass and timber products is part of the purpose and need of this project, there are many more ecological objectives listed in the NOPA. NOPA at 2. To achieve this prioritization the Forest Service should conduct prescribed fire treatments prior to mechanical treatments, and should include an alternative that achieves the forest products purpose at a lower amount than proposed in the NOPA, and through salvage cutting following prescribed fire in mechanical units that overlap with prescribed fire units.

V. PROTECT WILDLIFE AND FISH HABITAT

The NEPA document for the project should describe the previous projects in the area and their cumulative effect on forest cover. Prior to approval of the currently proposed project, surveys should be conducted for various wildlife species, such as lynx, marten, boreal owl, goshawk, and others. Some of these are discussed in more detail below.

Lynx (*Lynx Canadensis*). This threatened species inhabits spruce-fir and lodgepole pine forests primarily. ILBT, 2013, at 24, 25. It needs dense horizontal cover to find its chief prey, snowshoe hare:

> Dense saplings or mature multi-layered stands are the conditions that maximize availability of food and cover for snowshoe hares at varying snow depths throughout the winter.

Id. at 27.

The proposed cuts in spruce-fir would be mostly group selection openings of 0.5 to 2 acres in size. The openings would be at least two tree lengths away from each other, and would be well-distributed throughout the project area. NOPA at 5. Such manipulation, while not intense, must still comply with Standards VEG S1, S2, and S6 in the Southern Rockies Lynx Amendment (SRLA). See below.

If the stands to be cut already have two or more age classes, including one young age class, i.e., seedlings or sapling that provide hare habitat, the proposed cuts are unnecessary to achieve ecological objectives. The EA should include project design criteria that ensure group selection cuts occur only in stands of conifers without a young age class. Where any cuts are made, livestock must be kept out of the areas to avoid damage to tree regeneration.

Also, previous cuts may have opened up the stands, fragmenting habitat and creating unsuitable habitat. If more than 30 percent of the lynx habitat in any lynx analysis unit does not yet provide snowshoe hare habitat, "no additional habitat may be regenerated by vegetation management projects". Standard VEG S1, SRLA Record of Decision at Attachment 1-3. Standard VEG S2 prohibits converting more than 15 percent of the lynx habitat in any lynx analysis unit to unsuitable in any 10 year period. Ibid.

Under Standard Veg S6, activities that reduce winter snowshoe hare habitat, including group selection openings, cannot be implemented in areas that do not meet Veg S1. Id. at Attachment 1-5.

Also, the cut units must be carefully shaped and located to minimize the chance of windthrow. Any blown down spruce trees provide ideal breeding ground for spruce bark beetles, which could then attack live spruce trees in the surrounding area.

Any treatment must maintain denning habitat, which often consists of piles of fallen logs and/or uprooted trees. Existing piles of logs and uprooted trees should generally be retained. New ones can be created with slash piles. See SRLA ROD at Attachment 1-5, guideline VEG G 11.

While lynx do not appear to use pure aspen for foraging or denning, they can still use it to travel between patches of suitable conifer habitat. Cutting large openings in this forest cover as proposed would eliminate lynx use of this habitat for some time. For example, "In winter, lynx do not appear to hunt in openings, where lack of cover limits habitat for snowshoe hares". ILBT, 2013 at 28; citations omitted.

Any treatment must maintain denning habitat, which often consists of piles of fallen logs and/or uprooted trees. Existing piles of logs and uprooted trees should generally be retained. New ones can be created with slash piles. See SRLA ROD at Attachment 1-5, guideline VEG G 11.

Marten (*Martes Americana*). This species is a sensitive species in Region 2 (R-2) of the Forest Service[3]. It has habitat requirements similar to lynx, in that it needs forested areas with moderate to high canopy closure. The down dead wood is very important, as it allows marten access to prey under snow. The Forest Plan requirement for downed logs (see Plan at 2-7) must be met, and preferably exceeded to ensure sufficient down dead wood for lynx, marten, and other species.

Boreal Owl (*Aegolius funereus*), olive-sided flycatcher (*Contopus cooperi*), and golden crowned kinglet (*Regulus satrapa*) are among other species that may nest and forage in spruce-fir forests. The boreal owl and flycatcher are R-2 sensitive species. Any areas with nests for these species should be avoided during unit layout. Sufficient numbers of snags must be retained and be well-distributed across the landscape, as these trees may be used by these species for nesting and/or perching. The Forest Plan standard minimums for snags (Forest Plan Table 2-2, p. 2-7) should be exceeded, given that past tree removal has likely decreased existing snag levels and the prospect for future ones.

Goshawk (*Accipter gentilis*). This raptor is an R-2 sensitive species. It is known to nest in both aspen and conifer trees. See Kennedy, 2003, at 58. It needs nesting areas, including alternative nest sites, of 30 acres each, with large trees and high canopy closure. See Kennedy, ibid., and Reynolds et al, 1992 at 5-6. Reynolds et al also identified the need for a post-fledging area (PFA) of 420 acres around the nest with high canopy cover, and foraging areas of 5400 acres[4] with slightly more open understories. The PFA and foraging areas can have openings up to 2-4 acres in size.

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[3] Sensitive species are defined follows at FSM 2670.22:

> Those plant and animal species identified by a regional forester for which population viability is a concern, as evidenced by:
>
> a. Significant current or predicted downward trends in population numbers or density.
>
> b. Significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution.

[4] The acreage for the PFA includes the nest area, and the foraging area acreage includes the PFA and the nest area.

Clearly, some of the treatments proposed - large areas of aspen clearcut - could destroy or degrade habitat for goshawk. Thus it is very important to survey any areas proposed for treatment to detect goshawk prior to finalizing unit layout in the project area. All active and inactive nest areas must be completely avoided[5], and for active territories, treatment in the PFA and foraging areas must be limited to conserve the forest structure this species needs. No activity should occur during the nesting season[6] in the PFA, and only light activity, such as marking of trees or unit boundaries, should be allowed in the foraging area during this time.

Deer (*Odocoileus hemionus*) and elk (*Cervus elephus*). Under the proposed action, 5068 acres of prescribed fire and 80 acres of fuels treatment near the Sunlight communications site would occur in management area (MA) 5.43, Elk Habitat. NOPA at 23. Both areas contain one or more calving areas. Forest Plan at 3-64, 3-67. Activity in these areas should not occur during the calving/fawning season, May 15 through June 20. See Forest Plan at 3-62. The prescribe fire proposed in this project should be done gradually, probably over 5-10 years, rather than all in one season. This would allow the first-burned areas to be revegetating as the last ones are burned, so that the whole area does not become unsuitable habitat for deer and elk.

It is especially important to close and obliterate roads in MA 5.43. (See more detailed discussion on road removal in section VII below.) Any roads improved or created for the project would get used by the public, which would decrease the habitat effectiveness.

We approve of using natural fire breaks as much as possible and constructing fire lines where needed only by hand, as is proposed. NOPA at 14. Constructing fire lines with machines turns them into roads, and they are then harder to obliterate.

Purple martin (*Progne subis*). The habitat for this R-2 sensitive, avian species "is mature aspen forest with nearby meadows [within 175 feet] and open water [within 300 meters]". Wiggins, 2005, at 3, 18, 19. It nests in cavities in mature, live aspen trees. Ibid.

With the large openings in aspen proposed, this species could be very adversely affected by the project. The large openings would obviously remove nesting habitat, and it would probably be at least 60 years before the regenerated aspen are old enough and large enough to develop the cavities needed for nesting. Thus there would be much less habitat for this species for some time after project implementation. That would discourage or prevent purple martin from dispersing to new habitat within the project area and from colonizing the project area from other areas.

[5] Nests are often used more than once, and sometimes intermittently for decades. Reynolds et al at 13. A Forest Plan standard requires protection of "known active and inactive raptor nest areas". Plan at 2-16.
[6] Reynolds et al state: "Nesting areas are occupied by breeding goshawks from early March to late September…". Id. at 13.

We recommend reducing the amount of aspen cut, as discussed in section II above, which would conserve habitat for this species.

Boreal toad (*Anaxyrus boreas boreas*). This species is R-2 sensitive and a species of viability concern on the White River National Forest. See Forest Plan FEIS at 3-181. It has experienced a rapid population decline over the last 25 years or so. Potential habitat, which is areas with shallow, non-flowing water, should be surveyed prior to approval of any project. Any habitat, including hibernacula, must be avoided.

A Forest Plan standard requires conservation of boreal toad and leopard frog habitat: "Allow no loss or reduction in habitat quality of occupied or known historic boreal toad or leopard frog habitat". Plan at 2-25. Another standard requires retention of vegetative cover around breeding areas for these species. Ibid. A guideline recommends limiting prescribed fire within three miles of occupied habitat and vegetation management using heavy equipment within 1.5 miles of occupied habitat to times when toads are inactive. Id. at 3-26.

Cutthroat trout. Under the plan, the Colorado River cutthroat trout (*Oncorhynchus clarkii pleuriticus*) is a species of viability concern. Plan at 2-24, 2-25. See also Plan FEIS at 3-192. It is also an R-2 sensitive species. However, recent genetic research shows a much different distribution of cutthroat trout than was previously thought to exist in Colorado. *O. c. pleuriticus* is likely found only in the Green and Yampa Rivers drainages in Colorado. The trout in much of the remainder of Colorado's west slope, including any the project area, "may represent an undescribed distinct taxon". Metcalf et al, 2012, at 7, 11.

In any case, the cutthroat trout and any other fish species in streams in the project area should be conserved by protecting habitat. This can be accomplished through maintaining riparian buffers (see further discussion in section X below), and by minimizing roads (see section VII below). Pool depths should be retained, as should some woody debris in streams, the latter to maintain aquatic habitat complexity. See Forest Plan at 2-25.

The Forest Service should work with other agencies, including the Colorado Division of Parks and Wildlife and the U. S. Fish and Wildlife Service to analyze any trout species in streams in the project area, since they may be a species not previously described.

VI. PROTECT ROADLESS AREA CHARACTERISTICS AND BOUNDARIES

Proposed units 101, 110, 204, and 206 share long borders with Colorado Roadless Areas (CRAs), while units 102 and 106 touch CRA boundaries. See maps at NOPA pp. 6-7. To maintain the integrity of the roadless areas, implementation of treatment in these units must not facilitate illegal motorized entry into the roadless areas. We suggest that no roads be built within a quarter mile of roadless area boundaries, and that cutting not be done close to the roadless boundaries adjacent to these units. Any roads constructed in these units that are no longer needed or are close to the respective roadless boundary must be completely obliterated, as should any existing roads, whether used for the project or not,. See section VII below.

Figure 5 in the NOPA (p. 15) shows "proposed prescribed fire areas" extending into two roadless areas. We do not oppose burning in CRAs if it will help restore the natural structure and composition of ecosystems. However, prescribed burning often requires the use of control lines, such as roads, which are likely to be absent in CRAs. The construction of control lines inside CRAs would be likely to diminish roadless area characteristics, which are:

(1) High quality or undisturbed soil, water, and air;
(2) Sources of public drinking water;
(3) Diversity of plant and animal communities;
(4) Habitat for threatened, endangered, proposed, candidate, and sensitive species, and for those species dependent on large, undisturbed areas of land;
(5) Primitive, semi-primitive non-motorized and semi-primitive motorized classes of dispersed recreation;
(6) Reference landscapes;
(7) Natural-appearing landscapes with high scenic quality;
(8) Traditional cultural properties and sacred sites; and
(9) Other locally identified unique characteristics.

The Colorado Roadless Rule at 36 CFR 294.41.

Any activity in CRAs could adversely affect any, or almost all, of these characteristics. Therefore, we recommend that fires be approved in CRAs only if there is a compelling need and where fires can be implemented with minimal construction of control line. Any control lines must be constructed only with hand tools. After fires are out, these lines must be revegetated with locally native species. In some situations, natural regeneration with these species may occur on disturbed areas.

VII. OBLITERATE UNNEEDED ROADS

To avoid proliferation of a road system that is already too big to maintain properly, we believe that any new roads constructed for the project should be obliterated. This means totally removing them by: removing culverts, restoring cuts and fills, ripping and seeding the road surface, and blocking the beginning of the road and any places it intersects with other roads that stay open. Removing roads would reduce new area of illegal motorized use, as users could easily drive up roads used for the project and left open, then drive off such roads.

The NOPA contains contradictory information on how roads would be managed. On the one hand it says: "Newly constructed temporary roads would be closed to motor vehicle traffic or obliterated following treatment activities." NOPA at 8. But later on the same page, it states: "Following harvesting activities, newly constructed temporary roads would be obliterated." Closing a road to motor vehicle use falls well short of obliterating it. The Forest Service needs to clarify if any newly constructed roads will be retained after project completion.

Note that agency's Watershed Conservation Practices Handbook (WCPH) requires the following action:

> Site-prepare, drain, decompact, revegetate, and close temporary and intermittent use roads and other disturbed sites within one year after use ends. Provide stable drainage that disperses runoff into filter strips and maintains stable fills.

FSH 2509.25, section 13.4, design criterion 1a.

We believe that existing roads within the project area should also be obliterated if not needed for future use. This appears to be the intent, as some of these roads would be "decommissioned" per the last paragraph on NOPA p. 8. If all of the activities listed under decommissioned were performed, if would probably amount to obliteration. All unneeded roads in the project area should be fully obliterated, even if they are not used in the project.

VIII. PROTECT SOILS AND WATERSHEDS

Reducing the density of live vegetation will, to some degree, increase run-off. Given that the area has already received considerable vegetation removal in the past, streamflows may already be higher than they otherwise would be. Before approving any project of the magnitude proposed, the Forest Service must analyze the past impacts, combined with those from the proposed project and from any reasonably foreseeable future projects. Such analysis of impacts is required by NEPA, as is discussed above in section I. The analysis must include impacts from the ski area,

(i.e., the delayed snowmelt due to compacted snow on ski runs and the addition of streamflow caused by the melt of human-made snow.)

It is important to protect riparian areas, i.e., have a suitable buffer zone around all water bodies to protect them from disturbance, especially by heavy equipment. Note that the Planning Rule requires protection of riparian areas. 36 CFR 219.8(a)(3). Specifically, plan components must "giv[e] special attention to land and vegetation for approximately 100 feet from the edges of all perennial streams and lakes". Id. at (a)(3)(ii). A relevant Forest Plan standard states:

> In riparian areas, vegetation cover will be managed to provide suitable wildlife habitat along a minimum of 80 percent of the length of riparian zones within the project area. New corridor interruptions will be spaced to minimize interruptions to habitat connectivity.

Plan at 2-16.

The Forest Service's Watershed Conservation Practices Handbook (WCPH) states:

> In the water influence zone next to perennial and intermittent streams, lakes, and wetlands, allow only those actions that maintain or improve long-term stream health and riparian ecosystem condition.

FSH 2509.25, section 12 (Management Measure 3).

With the existing road system and proposal to expand it (at least temporarily), there could be a concern with connected disturbed area (CDA), as road networks and other areas with no vegetation often deliver sediment to streams. Note the following requirement from the WCPH:

> In each watershed containing a 3-rd (sic) order and larger stream, limit connected disturbed areas so the total stream network is not expanded by more than 10%. Progress toward zero connected disturbed area as much as practicable. Where it is impossible or impracticable to disconnect a particular connected disturbed area, minimize the areal extent of the individual connected disturbed area as much as practicable. In watersheds that contain stream reaches in diminished stream health class, allow only those actions that will maintain or reduce watershed-scale Connected Disturbed Area.

FSH 2509.25, section 11.1, design criterion 1a.

The Forest Service's Soil Management Handbook (SMH) prohibits further activity in areas with detrimental soil impacts until the effects have been mitigated or natural recovery has occurred:

> Standards for Detrimental Compaction, Displacement, Severe Burning, and Erosion apply to the cumulative effects of management practices over time. If a standard is exceeded in an initial entry, future entries must have no additional detrimental effect unless mitigative measures have been applied or natural recovery has taken place between entries.

FSH 2509.18, R-2 Supplement No. 2509.18-92-1, section 2.2.

With all the previous activity in the project area, there may be some locations that still have detrimental soil impacts. Some areas proposed for treatment, skid trails, temporary roads, or landings, representative of such proposed areas throughout the project area, should be sampled to assess the soil quality[7]. Areas showing detrimental impact should be avoided.

Operations must be conducted in ways that minimize creation of detrimental soil impacts. This would include suspending operations during periods when the soils are saturated or close to saturation. Soils that become detrimentally compacted, such as those at landings, on sked trails, and temporary roads, can be ripped after operations are complete.

IX. FIGHT NOXIOUS WEEDS AND PROTECT RARE PLANTS

The large acreage on which ground disturbance would occur under the proposed project would create a very favorable environment for the introduction and spread of noxious weeds. Before any ground disturbance occurs, there must be surveys for noxious weed populations in any areas where ground might be disturbed by road construction or reconstruction, use of mechanical equipment, skid trails, landings, or burning. Any populations found must be eradicated.

Follow-up surveys, with eradications as needed, should occur for at least three full growing seasons following the completion of treatment in any given area.

The surveys for weeds should also be used to detect populations of rare plants, including those that are threatened, endangered, sensitive, or of local concern. Any populations found should be buffered by an area large enough to not only protect the plants, but also allow a significant expansion of each population. No ground-disturbing activities should be allowed in the buffer areas. If winter operations are permitted, they must stay out of the buffer areas because the use of

[7] The SMH, section 2.42, has guidance for how to conduct soil sampling.

heavy equipment could crush plants and, if winter operations are allowed, compact the snow around and over them, causing a delayed snowmelt and shorter growing season.

X. RETAIN AND MAINTAIN SCENIC INTEGRITY

Parts of the project area receive moderate or higher intensity recreational use at various times of the year: camping, hiking, and mountain bicycling in the snow-free months, big game hunting in the fall, and motorized and non-motorized use in the winter. Scenic integrity is part of the attractiveness of the area to visitors.

Of most concern for scenic impacts is the area along FSR 300 south of Four Mile Park. It is assigned to MA 4.3, Dispersed Recreation. Under this MA, "[s]cenery is managed to provide a range of scenic integrity objectives from moderate to very high". Plan at 3-44.

Under the proposed action, 111 acres within this MA would receive vegetation management treatment, and 172 acres would be prescribed burned. NOPA at 22. The former includes one 99-acre coppice unit, unit 204. Id. at 5, 6. This area has several campsites along the northern edge of the unit, which would be heavily impacted cutting unit 204. Cutting a large unit like this one so close to the road and existing campsites would not meet the scenic integrity objective, and would significantly change the recreational use and enjoyment in the area. We recommend not cutting within a buffer of 100 feet along the roads that form the eastern and northern boundaries of the unit and feathering the edge of the unit to minimize the visual impacts of the coppice cut. Also, slash piles should not be visible from the road.

XI. CAREFULLY DISPOSE OF SLASH

Implementing the project as proposed would generate a large amount of slash, some of which would probably have to be treated or removed to keep fuels at an acceptable level. NOPA p. 6 states: "Slash piles and non-merchantable material may be burned and/or removed for biomass utilization."

Machine piling and burning slash is not a good practice. It results in a long, hot fire that sterilizes soils by killing all microorganisms and volatilizing soil nutrients. NOPA p. 13 indicates that trees could be processed at a landing. In other words, whole trees would be skidded to landings and processed there, creating very large amounts of slash.

We recommend that slash piles be limited to those created by hand. They should be no more than about five feet high and be composed of material not greater than three inches in diameter. The

larger pieces can be offered for firewood. Slash can be chipped, but chip depth and coverage must be limited – we recommend depth of no more than two inches and coverage of no more than 15 percent of any unit. Areas with chips will not likely regenerate trees or other vegetation.

XII. CAUTION ON PROPOSED TREATMENTS AT THE SKI AREA

One of the proposed "forest health" treatments at Sunlight Ski Area would be:

> Removing hazard trees as a sanitation or salvage treatment where appropriate, for instance within a 150-foot buffer zone from the edge of a ski run or lift corridor.

NOPA at 10.

Why is this distance specified for hazard tree removal? No trees at or near the ski area are 150 feet tall. Implementing this measure might mean removing all supposedly hazardous trees in small islands. See treatment option 1.2, NOPA at 11. These trees, even if dead, guide ski area users during poor visibility and flat light conditions, and may help define or separate runs. These trees could, if felled and piled on site, also help keep skiers out of the tree islands once they hit the ground.

Dead and dying trees have value in the forest ecosystem. They should be removed if they are a hazard to skiers or infrastructure, but it is hard to imagine that trees 150 away from a ski run or lift corridor could constitute a hazard.

Another measure calls for use of an anti-aggregation pheromone to protect conifer trees from bark beetle attacks. If this is implemented, if would have to be done to all trees of a particular species on which this pheromone was applied. Otherwise, the pheromone might drive beetles to attack trees where the pheromone had not been applied.

We agree with the proposal to "[i]mplement[] measures to protect young regeneration from damage by skiers". Skiing or snowboarding over young trees may damage them directly or by compacting snow that melts much later than normal, allowing molds to form and shortening the growing season. Young trees at ski areas will grow into taller trees that define runs, reduce snow scour, and provide visibility for users in times of heavy snow or fog. Young trees that are needed for these purposes should be protected from damage users by marking off these areas with ropes and other barriers, posting signs, and patrolling the closures.

Given the importance of trees at any ski area, any tree removal at Sunlight must be designed and implemented carefully, to avoid windthrow. This applies mainly to conifer trees. Blowdown of

Englemann spruce trees must especially be avoided, as fresh blowdown is an ideal breeding ground for spruce bark beetles, which could then attack other spruce trees at the ski area and in the surrounding area.

XIII. DISCLOSE THE IMPACTS FROM THE PROJECT ON CLIMATE CHANGE

One of the purposes of the proposed project is to "[p]rovide commercial forest products and / or biomass to local industries." NOPA at 2. With any treatment, the killed trees in the area would no longer take carbon out of the air, and with use for biomass, burning the wood for biomass would also put carbon directly into the air. This would add to atmospheric carbon and increase the potential for climate change. The Forest Service must calculate how much additional carbon would be released as a result of implementing the County Line Project. This includes impacts from connected actions like the burning of some of the wood sold from the project area for electricity and/or heat. The social cost of carbon should be used to help determine the impacts.

XIV. ALLOW PUBLIC COMMENT ON A DRAFT NEPA DOCUMENT FOR THE PROJECT

With a project of the size proposed in an area with considerable past disturbance (thus generating cumulative impacts) and significant recreation use, we believe the public should be offered the opportunity to comment on a draft EA prior to a proposed decision being issued. This would allow interested parties, many of whom use the project area for various activities, to comment on alternatives and the analysis of potential impacts from the project. This would help ensure that the impacts analysis is complete and that all possible measures to minimize such impacts are considered.

XV. CONCLUSION

The project could benefit from several important changes. Several aspen units should be carefully analyzed for whether coppice cuts are necessary, prescribed fires should be prioritized over mechanical treatments to achieve project goals, and the Forest Service should decommission and completely obliterate as many temporary roads as possible regardless of whether those templates exist on the landscape prior to project implementation or whether they are used for this project or not. The proposed cuts in conifer must comply with the relevant SRLA standards. All proposed treatment must be designed and implemented to ensure adequate protection for lynx, and sensitive and other wildlife species, and for rare plant species. The public should be given an opportunity to comment on a draft NEPA document, which thoroughly discloses and analyzes cumulative impacts.

Sincerely,

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