

October 24th, 2023

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RE: Skyline Healthy Forest Restoration Act (HFRA) Project

Comments submitted electronically through the project webpage comment portal.

Grand Canyon Trust • Western Watersheds Project

Forest Supervisor Ryan Nehl,

These comments are submitted on behalf of the Grand Canyon Trust and Western Watersheds Project regarding the Skyline Healthy Forest Restoration Act (HFRA) Project. We appreciate the opportunity to participate in this project.

COMMENTS

I. Purpose & Need

The purpose and need section of the Scoping Notice describes general goals and indicates the actions that will be taken. For example, this “project aims to enhance the resiliency of forest ecosystems to current environmental stressors, including drought, wildfire, insects and diseases, and to foster their capacity to adapt to future climate conditions” (p.7). These are important and worthy goals, but please be more explicit about the vegetation types present and the desired future conditions for each vegetation type. The Scoping Notice speaks to the vegetation condition class (VCC) indicating that, “current vegetation has departed from historical reference conditions,” (p.6) without providing specifications on vegetation types, locations, or conditions present. This is concerning because it indicates that the same vegetation treatments will be prescribed to all vegetation types. We request that the Forest provide ecological site descriptions to indicate vegetation types, soil types, etcetera within the proposed treatment area. We request that GIS maps be provided for accessibility and to clarify the locations of each type. We also ask that the Forest provide specific information regarding vegetation departure trends for each vegetation type.

In addition, please address understory conditions in these vegetation types as appropriate, which receive little attention in the Scoping Notice. We recommend that the Forest strives to achieve conditions described in ecological site descriptions, including percent cover of biological soil crust and upper limits on percent cover of bare ground.

II. Proposed Action - Vegetation Type Prescriptions

A. Mixed Conifer

We recommend that vegetation treatment prescriptions to be site-specific. In addition, we believe that it is useful to specify general treatment prescriptions by vegetation type. We propose the following as general treatment prescriptions for dry mixed conifer forests:

- **Overall goal:** Aim to reduce stand density and increase mean diameter to more closely approximate historical conditions, and to increase resilience to fire and insect outbreaks. Accomplish this goal both by retaining existing old tree populations, and where old trees are not present, by managing to restore old tree structure to forests in the future.
- **Old trees:**
 - Refer to the 2023, “Mature and Old-Growth Forests” Report¹, Appendix A, Region 4 for guidelines on old-growth tree diameters and ages for each respective vegetation types. Trees meeting this criteria should be marked and retained.
 - All old trees of all species should be retained, including old but small trees and large snags and downed wood.
 - Remove younger trees (<150 years old) and other competing vegetation for twice the canopy drip line around old trees to reduce competition, eliminate ladder fuels, and reduce the likelihood of crown fire.
 - Do not remove old trees from clumps.
- **Younger trees:**
 - Do not remove all younger trees. Allow for multi-storied areas and future recruitment of old trees. Leave at least 10 square feet (in basal area) of younger trees per acre.
 - For younger Douglas fir and white fir (<150 years old), prioritize retention of some individuals that are not threatening old ponderosa pines.
- **Openings:** Include larger openings of irregular shape up to 2 acres in size.
- **Skips:**
 - Include strategic untreated areas (skips) in prescriptions, including around biologically unique attributes and some seedling/sapling patches, and to retain areas with shade, wildlife hiding cover, and decadence/deadwood.
 - Leave denser patches in less fire-prone areas, such as north-facing slopes and in cooler/moister draws, and manage for multi-storied habitat in these areas.
- **Future mortality:** Increase stand density targets (by 5-20%) to account for future tree mortality from prescribed or natural fire, insect mortality, and windthrow.
- **Understory:** Ensure post-treatment understory management of native species (e.g., conservative grazing levels) allows for the regular reintroduction of lower intensity fires.

B. Aspen

¹ <https://www.fs.usda.gov/sites/default/files/mature-and-old-growth-forests-tech.pdf>

We request that the Forest provide more clarity regarding the acreage and location of aspen restoration treatments. Under “Timber Stand Improvement by Mastication” Action 3 says the Forest will remove, “all live conifers 66 feet from any live aspen,” (p. 13). We request that all acres involving removal of conifer to restore aspen be included in a single category and mapped as such.

Quaking aspen forests are an important part of the landscape of southern Utah. Aspen communities are among the most biodiverse communities in the western US.² Wildlife (cavity nesting birds, raptors, mammals, and pollinators, among others) depend on aspen trees and the understory vegetation that can be so lush and diverse in aspen forests. But aspen forests are also among the most heavily invaded by non-native plant species.³ Therefore, good management is essential to maintain healthy aspen forests and to avoid their conversion to non-native understory vegetation, the loss of aspen due to browse of young stems and/or the conversion to conifer forests.

The Forest Service “Guidelines for Aspen Restoration in Utah” recommends “a minimum density of 500 recruits per acre”.⁴ In order to get that number of recruits (stems over 6-feet tall) there needs to be regeneration of at least 1,000 stems per acre. The Monroe Mountain Aspen Ecosystems Restoration Project has that criterion of 1,000 saplings per acre to achieve successful restoration.⁵

We support the goal to promote aspen recruitment and stand resiliency, but the role of ungulate herbivory must also be considered more thoroughly. The greatest factor that impedes the recruitment of aspen is browsing of young stems by ungulates, both wild (elk and deer) and domestic (cattle and sheep). Vegetation treatments in aspen forest result in an abundance of aspen stems (regeneration) but often the small aspen suckers are eaten by ungulates year after year, preventing them from growing over 6-feet tall (recruits). Ungulate browse levels on Monroe Mountain (Fishlake National Forest) averaged 67% of meristems in a study from 2013 to 2017.⁶ A Monroe Mountain study found that browsing of more than 30% of meristems impairs aspen recruitment and that recruitment failure occurs above 60% meristem loss.⁷

Under the Project Design Features, the Scoping document (p. 18) states, “In areas where aspen regeneration is planned, disturbed areas should be large enough to compensate for ungulate browsing (e.g., 500 acres). Treatment areas smaller than 500 acres should be monitored for

² Chong GW, SE Simonson, TJ Stohlgren and MA Kalkhan 2001. Biodiversity: Aspen Stands Have the Lead, But Will Nonnative Species Take Over? USDA Forest Service Proceedings RMRS-P-18. 2001.

³ Chong et al. 2001.

⁴ Kitchen, SG, PN Behrens, SK Goodrich, A Green, J Guyon, M O’Brien, D Tart 2019. Guidelines for aspen restoration in Utah with applicability to the Intermountain West. Gen. Tech. Rep. RMRS-GTR-390. Fort Collins CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 55 p.

⁵ USDA Forest Service 2015. Final Record of Decision, Monroe Mountain Aspen Ecosystems Restoration Project, Richfield Ranger District, Fishlake National Forest Sevier and Piute Counties, Utah. 90 p.

⁶ Rhodes, AC, and SB St Clair 2018. Final Report: Monroe Mountain Stable Aspen Monitoring 2013-2017.

⁷ Rhodes, AC, RT Larsen, SB St. Clair 2018. Differential effects of cattle, mule deer, and elk herbivory on aspen forest regeneration and recruitment. *Forest Ecology and Management*, 422: 273–280.

domestic and ungulate grazing and browsing until regenerating clones exceed at least 500 recruited stems per acre greater than 2 meters in height density objectives (generally 2-5 years).”

With the proposed vegetation treatments of Skyline Healthy Forest Restoration Act (HFRA) Project it will be **essential** to reduce livestock grazing post-treatment until there are at least 500 recruits per acre. This will **require rest from livestock grazing**, at least two years and maybe longer, to allow recruits to reach the threshold of 500 recruits per acre. Monitoring of the number of aspen recruits per acre will be needed for the Forest Service to know when there are sufficient aspen recruits to allow livestock back onto treated areas. Monitoring of understory vegetation is also important to make sure that native grasses and forbs re-establish, rather than non-native plants. The effect of livestock grazing on aspen communities in the project area, both in the past and associated with proposed treatments, should be addressed in the EA, and any necessary management changes identified. In addition, we request that the Forest develop a monitoring plan to be included in the EA.

Research on Monroe Mountain documented the problems of small mechanical treatments in producing sufficient aspen recruits due to ungulate browsing post-treatment. For a variety of reasons, the mechanical treatments were followed by excessive browsing by ungulates, which will prevent the aspen forest from persisting. On the other hand, relatively large prescribed fires on Monroe Mountain have resulted in higher levels of aspen recruitment that can support a new generation of aspen trees and the persistence of these important forests. The fate of the understory vegetation is not yet clear (it is currently being studied by BYU researchers) but the understory vegetation will presumably fare better under aspen trees than in areas so heavily browsed that that aspen cannot recruit. Based on nearby experience on Monroe Mountain, and the pervasive pressure from ungulate browsing, we feel that mechanical vegetation treatments should not be conducted in aspen forests in the of Skyline Healthy Forest Restoration Act (HFRA) Project aside from very specific circumstances, such as adjacent to private property. Mechanical treatments increase the likelihood of introducing non-native species on machinery, as well as creating soil disturbance that can facilitate establishment of invasive plants.

We support prescribed fire, especially large and higher severity fire in aspen forests, which seems to “improve aspen regeneration by increasing tolerance and chemical resistance to ungulate herbivores”.⁸ We also support allowing natural fires to burn, where they do not affect private property. In addition, we request that the Forest clarify which species of conifer trees will be subject to removal from within and surrounding aspen. While we recognize that overtopping and shading out of aspen by spruce and fir is an issue, we have not observed places where this is the case with ponderosa pine. Aspen/ponderosa pine communities were likely historically heavily dependent on frequent fire, to which mature ponderosa pine is resistant, and which would have promoted aspen regeneration. We recommend not mechanically

⁸ 7 Rhodes et al. 2018

removing ponderosa pine from the ponderosa/aspen vegetation type, and instead relying on fire as the primary treatment method.

We propose the following as general treatment prescriptions for aspen/mixed conifer forests:

- **Overall goal:** Restore aspen communities at risk of being lost due to overtopping by conifers, including multi-aged stands and a diverse, native, intact understory.
- **Fire:** Wherever possible, use large-scale fire, both prescribed and managed natural fire, to remove conifers. Large-scale fires are desirable to combat the risk of treatment failure due to excessive ungulate browsing of aspen sprouts post-fire.
- **Mechanical treatment:** Undertake mechanical removal of conifers sparingly, when the use of fire is not feasible (e.g., adjacent to private property), and preferably in conjunction with large-scale fire in the vicinity. Prevent ungulate use of mechanically treated areas either through jackstrawing of cut conifers (preventing ungulate access) or through fencing until the majority of new aspen sprouts are taller than six feet.
- **Post-treatment management:** Utilize monitoring to ensure post-treatment management of ungulate use allows for the continued, regular recruitment of aspen sprouts above 6 feet in height, resulting in a self-sustaining multi-aged aspen stand.

C. Ponderosa Pine

We propose the following as general treatment prescriptions for ponderosa pine forests:

- **Overall goal:** Aim to reduce stand density and increase mean diameter to more closely approximate historical conditions, and to increase resilience to fire and insect outbreaks. Accomplish this goal both by retaining existing old tree populations, and where old trees are not present, by managing to restore old tree structure to forests in the future.
- **Old trees:**
 - Refer to the 2023, “Mature and Old-Growths Forests” Report⁹, Appendix A, Region 4 for guidelines on old-growth tree diameters and ages for each respective vegetation types. Trees meeting this criteria should be marked and retained.
 - All old trees should be retained, including old but small trees, and large snags and downed wood.
 - Remove younger trees (<150 years old) and other competing vegetation for twice the canopy drip line around old trees to reduce competition, eliminate ladder fuels, and reduce the likelihood of crown fire.
 - Do not remove old trees from clumps.
- **Younger trees:** Do not remove all younger trees. Allow for multi-storied areas and future recruitment of old trees. Leave at least 10 square feet (in basal area) of younger trees per acre.

⁹ <https://www.fs.usda.gov/sites/default/files/mature-and-old-growth-forests-tech.pdf>

- **Openings:** Include larger openings of irregular shape up to 2 acres in size.
- **Skips:** Include strategic untreated areas (skips) in prescriptions, including around biologically unique attributes and some seedling/sapling patches, and to retain areas with shade, wildlife hiding cover, and decadence/deadwood.
- **Future mortality:** Increase stand density targets (by 5-20%) to account for future tree mortality from prescribed or natural fire, insect mortality, and windthrow.
- **Understory:**
 - Ensure post-treatment understory management of native species (e.g., conservative grazing levels) allows for the regular reintroduction of low-intensity ground fires every 5-15 years.
 - In areas with significant cheatgrass presence, minimize ground disturbance in treatments (by favoring hand-treatment over large machinery) and suppress fire. These areas will likely require more active management and regular maintenance into the future.

In addition, we refer to the Forest to the Old Growth Protection & Large Tree Retention Strategy developed as part of the Four-Forest Restoration Initiative in northern Arizona. This Strategy is referred to in the 2015 Record of Decision for the Four-Forest Restoration Initiative¹⁰, and we include the Strategy as an attachment to our comments. This Strategy was developed with broad agreement from a variety of stakeholders and provides a common-sense approach to protecting and retaining large old trees. We suggest the Forest use this document as a starting point for proposed treatments in ponderosa pine and take a similar collaborative approach in order to achieve broad agreement regarding large old tree retention in all forest types.

D. Pinyon/Juniper

We propose the following as general treatment prescriptions for pinyon-juniper forests:

- **Overall goal:** Aim to approximate historical conditions, and to prevent conversion of pinyon-juniper forests to cheatgrass monocultures resulting from high-intensity fire.
- **Old trees:**
 - Refer to the 2023, “Mature and Old-Growths Forests” Report¹¹, Appendix A, Region 4 for guidelines on old-growth tree diameters and ages for each respective vegetation types. Trees meeting this criteria should be marked and retained.
 - All old trees should be retained, including old but small trees, and large snags and downed wood.
 - Where there is a risk of uncharacteristic fire intensity resulting in a cheatgrass monoculture, younger trees (<150 years old) and other competing vegetation may be selectively removed from the immediate vicinity of old trees to reduce the risk of a crown fire carrying.

¹⁰ https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprd3836454.pdf

¹¹ <https://www.fs.usda.gov/sites/default/files/mature-and-old-growth-forests-tech.pdf>

- **Younger trees:** Do not remove all younger trees. Allow for multi-storied areas and future recruitment of old trees.
- **Future mortality:** Assess the possibility for future mortality due to drought and Insect mortality and retain a range of age classes to ensure future resilience.
- **Understory:**
 - Ensure post-treatment understory management of native species (e.g., conservative grazing levels) allows for the restoration of this component of pinyon-juniper forests.
 - In areas with significant cheatgrass presence, minimize ground disturbance in treatments (by favoring hand-treatment over large machinery) and suppress fire. These areas will likely require more active management and regular maintenance into the future.

To ensure the retention of old-growth pinyon and juniper trees, the Forest should core trees in each stand to establish an age-size relationship based on the samples.

E. Sagebrush/Grassland

Rangeland health evaluations in nearby vegetation projects show that treatments often exhibit higher than average utilization by livestock and wildlife and have low scores for soils and hydrological function¹². Yet the Forest Service proposes to potentially affect these areas by vegetation manipulation (i.e., mechanical treatment, prescribed fire) that have failed to achieve sustainable sagebrush/grassland systems in the past. We question the use of prescribed fire in sagebrush communities and would like more detail on where this method might be used and under what conditions. Sagebrush communities are not fire dependent, and post-fire recovery periods can be long. Historic fire return intervals for this community varied in the past, but they were on the order of decades or centuries, especially in the case of mountain big sagebrush.¹³ This affects the many wildlife species that depend on this vegetation type for food and shelter. Researchers recommend that prescribed fire only be conducted in communities that have enough perennial native grasses and forbs to outcompete cheatgrass and other invasive exotic species (Kitchen and MacArthur 2007). Please also consider including passive restoration as one of the methods in this vegetation type if the seed bank is adequate to allow for recovery.

F. Riparian Areas

The Scoping document gives no indication that the proposed action will occur within riparian areas; however, it does state, “The Skyline HFRA Project...covers slopes of the Wasatch Plateau

¹² Miller, M.E 2008. Broad-Scale Assessment of Rangeland Health, Grand Staircase–Escalante National Monument, USA Rangeland Ecol Manage 61:249–262.

¹³ Innes, Robin J.; Zouhar, Kris. 2018. Fire regimes of mountain big sagebrush communities. In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Missoula Fire Sciences Laboratory (Producer). Available: https://www.fs.fed.us/database/feis/fire_regimes/mountain_big_sagebrush/all.html [2019, June 7].

on the Sanpete and Price/Ferron Ranger Districts where National Forest System lands intersect with numerous...critical watersheds.” [Emphasis added]. If the proposed actions are expected to occur within Riparian areas, this needs to be made apparent in the EA, and should be mapped as a specific project type.

In the case that actions will occur within riparian areas, we provide the following recommendations:

If cut trees are placed in the channel or on streambanks, care should be made to minimize disturbance to soil and streambanks. Vehicles should not drive in streams or on streambanks (or hydric riparian soils as noted below).

There should be no removal, destruction, or mastication of riparian woody plants such as cottonwood, willow, or birch. No vehicles should be driven on hydric vegetation or moist/wet soil which is very vulnerable to compaction and displacement by tires of machines.

There is little if any benefit of removing conifers in riparian areas on active floodplains. It would be better to leave those trees for the habitat they provide to wildlife and for the streambank and soil stabilization their roots provide. The wet conditions and periodic flooding will cause those trees to fall relatively frequently, and at that point the fallen logs can add large wood to the stream which has stream habitat benefits. If and when natural fires occur in riparian areas, the vegetation will generally recover quickly as long as it is rested from livestock grazing post-fire. On terraces that are not connected to the stream (through overbank flooding) it could make sense to cut conifers in order to reduce the spread of fire, but that should be done in a way that minimizes damage to soil, such as through hand cutting.

We suggest referring to cottonwoods as riparian woody plants, or deciduous trees, rather than “hardwoods” even if that is an accepted term. Because cottonwoods are such soft wood, the term hardwoods can be confusing in the western US (in contrast to the eastern US with oak and maple hardwoods).

Chips from masticated trees should not be placed in riparian areas. Wood piles should not be stacked in riparian areas. Burning of wood piles should not occur in riparian areas where that would damage soils, especially soils that have organic matter which could be burned.

Natural fire in riparian areas should be accepted. The only reason to stop a natural fire in a riparian area would be to prevent the spread of fire that could destroy private property. If riparian areas burn due to prescribed or natural fire, they need to be rested from livestock grazing at least two years, and until any riparian woody vegetation is over six feet tall so that it can recruit into the overstory.

We suggest that the Proposed Action include the ability to create riparian pastures and exclosures to allow for post-fire recovery of riparian areas. In addition, cut trees could be used to create barriers that block ungulates from certain riparian areas, which could foster a mosaic of riparian conditions.

III. Mechanical Harvesting

A. Old Trees

The Proposed Action describes approximately 58,650 acres as priority areas with high concentrations of infrastructure development. The description includes areas with, “stands containing dense, merchantable (greater than 8-inch diameter) trees,” (p. 12). We have significant concerns with this proposal, considering it refers to trees with diameters >8-inches without mentioning a size limit. Further along, the objective does claim that the project will maximize, “the retention of old-growth and larger trees,” (p.12). However, the Scoping Notice does not describe how this objective will be met, or how old-growth trees will be retained amidst the project activities.

Biden’s executive order 14072 on “Strengthening the Nations Forests, Communities, and Local Economies”¹⁴ calls for the conservation and restoration of these forests, recognizing the critical roles that old-growth trees play in conserving biodiversity and fostering resilience in the face of a changing climate. Extensive vegetation removal projects like the one proposed, have the potential to interfere with the goals and efforts set by the Biden administration to “conserve Americas mature and old-growth forests on Federal Lands.” Large old trees are important in all forest types, but are particularly so in pinyon-juniper, ponderosa, and mixed conifer forest types. We believe that every effort should be made to retain large old trees as the ecological backbone of these communities, and to design treatments to maximize their retention.

We suggest the Forest use the Four-Forest Restoration Initiative document¹⁵(included as attachment with comments), as a starting point for proposed treatments in ponderosa pine and take a similar collaborative approach in order to achieve broad agreement regarding large old tree retention in all forest types.

B. Harvesting Systems

Page 12 refers to various harvesting systems that may be used for the proposed action including ground-based mechanical harvesting limited to 40% slopes, high flotation ground-based harvesting limited to 60 % slopes, and aerial harvesting (skyline systems and helicopters). We are concerned that many of these locations may be inappropriate for such treatments. Areas with steep slopes, rocky soils, and an absence of identified departure from natural conditions, should not be subject to tree removal. In addition, extremely steep slopes should be removed from the treatment area. We request that Forest consider modification of the treatment area to reflect on-the-ground conditions and determine where such treatments might actually be appropriate.

¹⁴ <https://www.whitehouse.gov/briefing-room/presidential-actions/2022/04/22/executive-order-on-strengthening-the-nations-forests-communities-and-local-economies/>

¹⁵ https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprd3836454.pdf

IV. Timber Stand Improvement Treatments

A. Mastication

The scoping document claims that mastication, “would occur primarily in areas where stands contain brush and woodland cover types,” (p.13). We request that the EA provide specific information related to vegetation types and the locations of this (and other) treatment types.

B. Reforestation and Stocking

The scoping document does not clarify what vegetation types reforestation would occur in, nor what species would be planted. It does mention areas, “deficient in desirable species or understocked may be planted with desirable conifer seedlings,” (p. 13). No non-natives should be planted. Even planting of native seedlings could be biologically problematic if the seeds were from a different region and have genetic variability. Please include a list of species that could potentially be used in seeding associated with this project in subsequent analysis for this project.

We request that the term “desirable species” be clarified in the EA. We suggest that “desirable species” be native species appropriate for the ecological site type and reflective of reference conditions, rather than species that are considered beneficial for Timber sales.

C. Prescribed Burning

We support using prescribed fire in ways that are, “consistent with the natural fire regime,” (p. 13). Prescribed fire can do that by creating a mosaic of burned and unburned areas, which is the natural pattern. That will create natural fire breaks. In general, large-scale burning has the potential to create dense even-aged stands that will be vulnerable to large-scale fires in the future. We believe that it is more prudent to attempt to restore a natural fire regime rather than undertake treatments in a way that require the continual application of prescribed fire, particularly given the resource constraints of the agency.

One concern we have in the lower elevation areas is the potential for post-fire cheatgrass proliferation. We believe this concern is shared by the Forest. We request that the Forest provide more guidance with respect to low-elevation Maximum Manageable Areas and the potential for post-fire cheatgrass proliferation. In general, we recommend avoiding uncharacteristically high fire intensities in these areas and preventing fire from burning into areas where cheatgrass is established and likely to expand post-fire.

V. The Proposed Action Threatens to Violate the Roadless Rule

The national Roadless Area Conservation Rule, adopted in 2001, generally prohibits the cutting, sale, or removal of timber from National Forest Service inventoried roadless areas (IRAs) in Utah.¹⁶ For Skyline Healthy Forest Restoration Act (HFRA) Project, the Forest Service proposes

¹⁶ 36 C.F.R. § 294.13(a), published at 66 Fed. Reg. 3244 (Jan. 12, 2001) (“Timber may not be cut, sold, or removed in inventoried roadless areas of the National Forest System, except as provided in paragraph (b) of this section.”).

logging or removal of trees via thinning, timber stand removal, mastication, lopping and scattering, and other means across approximately 55,000 roadless acres. Because these treatments will occur within IRAs, the Forest Service can only authorize them if they comply with the Roadless Rule. Further, the potential impact to roadless area values and characteristics requires preparation of a full environmental impact statement, or at the absolute minimum, an environmental assessment.

According to the Scoping document, all the proposed actions and methods of treatment will be authorized within these IRAs. This is an irresponsible decision as there are no stated understandings of potential effects in IRAs.

A. Legal Framework: The Roadless Rule

The Roadless Rule provides that, in general, “[t]imber may not be cut, sold, or removed in inventoried roadless areas of the National Forest System.”¹⁷ One exception to this general provision states:

timber may be cut, sold, or removed in inventoried roadless areas if the Responsible Official determines that one of the following circumstances exists. The cutting, sale, or removal of timber in these areas *is expected to be infrequent*.

(1) The cutting, sale, or removal of *generally small diameter timber* is needed for one of the following purposes and will *maintain or improve one or more of the roadless area characteristics* as defined in § 294.11.

- (i) To improve threatened, endangered, proposed, or sensitive species habitat; or
- (ii) To maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period.¹⁸

The Roadless Rule defines roadless area characteristics as:

Resources or features that are often present in and characterize inventoried roadless areas, including:

- (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;

¹⁷ 36 C.F.R. § 294.13(a).

¹⁸ 36 C.F.R. § 294.13(b)(1) [emphasis added].

- (5) Primitive, semi-primitive nonmotorized 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.¹⁹

The rule requires a highly site-specific analysis, given the regulation's emphasis on "*locally identified* unique characteristics."²⁰

The Roadless Rule's preamble reinforces the need for such a site-specific analysis. Because of the great variation in stand characteristics between vegetation types in different areas, a description of what constitutes "generally small diameter timber" is not specifically included in this rule. Such determinations are best made through *project specific* or land and resource management plan *NEPA analyses*, as guided by ecological considerations such as those described below.

The intent of the rule is to limit the cutting, sale, or removal of timber *to those areas that have become overgrown with smaller diameter trees....*

[A]ll such *determinations of what constitutes "generally small diameter timber"* will consider how the cutting or removal of various size classes of trees would affect the potential for future development *of the stand*, and the characteristics and interrelationships of plant and animal communities associated with the site and the overall landscape. *Site productivity due to factors such as moisture and elevational gradients, site aspect, and soil types will be considered, as well as how such cutting or removal of various size classes of standing or down timber would mimic the role and legacies of natural disturbance regimes in providing the habitat patches, connectivity, and structural diversity critical to maintaining biological diversity.* In all cases, the cutting, sale, or removal of small diameter timber will be consistent with maintaining or improving one or more of the roadless area characteristics as defined in § 294.11.²¹

Vegetative management would focus on removing generally small diameter trees while leaving the overstory trees intact. The cutting, sale, or removal of trees pursuant to 294.13(b)(1) *must be clearly shown through project level analysis to contribute to the ecological objectives described.* Such management activities are expected to be rare and to focus on small diameter trees.²²

¹⁹ 36 C.F.R. § 294.11.

²⁰ *Id.* (emphasis added).

²¹ Forest Service, Roadless Area Conservation Rule, 66 Fed. Reg. 3244, 3257 (Jan. 12, 2001) (emphasis added).

²² *Id.* at 3258 (emphasis added).

In adopting the Roadless Rule, the Forest Service thus anticipated that logging in IRAs under this specific exception would only occur following a project-level NEPA analysis that evaluated *stand-specific conditions*.

B. The Forest Service Must Address the “Frequency” of Roadless Area Logging.

The Roadless Rule “expects” that logging (tree removal) in roadless areas for any purpose will “be infrequent.”²³ The Scoping Notice fails to address or identify the frequency of logging in roadless areas, or the duration of the project. At an absolute minimum, the Forest Service must explain how this project will not violate the Roadless Rule’s provision that logging should be “infrequent” in any subsequently prepared NEPA document.

C. The Forest Service Must Ensure that Logging Will Be Limited to “Generally Small Diameter Timber.”

The Forest Service’s Scoping Notice fails to explain how it can approve “thinning,” “timber stand improvement,” or other logging and tree removal within individual stands, much less across the entire planning area. While the Scoping Notice is careful to assert that, “proposed activities will be consistent with the Forest Plan,” the Scoping Notice fails to even mention the Roadless Rule, let alone address whether the project will comply with the Rule. This is a significant omission. In any subsequently prepared NEPA document, the Forest Service must explain why and how, *for each stand within each IRA*, the proposed action complies with the Roadless Rule.

The Forest Service may contend that it can authorize logging within IRAs under the Roadless Rule exception for logging of “generally small diameter timber.” The information provided in the Scoping Notice fails to make that case specifically for IRAs. In fact, it appears likely that the logging proposed for this project could violate this provision of the Roadless Rule.

In adopting the Roadless Rule, the Department of Agriculture explained that “[t]he intent of the rule is to limit the cutting, sale, or removal of timber *to those areas that have become overgrown with smaller diameter trees*.”²⁴ The Forest Service provides little evidence that the proposed action would do so.

Several of the specific types of logging the Scoping Notice identifies appear to target larger trees or contain no limits on the size of tree to be logged. Under the Mechanical Treatment section (p. 12), the document states that the treatment area includes, “stands containing dense, merchantable (greater than 8-inch diameter) trees.”

The Forest Service could have clarified the issue by providing explicit design features that limit logging and tree removal to comply with the Roadless Rule. As noted above, the Roadless Rule preamble indicates that before the agency can use the exception permitting logging within IRAs,

²³ 36 C.F.R. § 294.13(b).

²⁴ Forest Service, Roadless Area Conservation Rule, 66 Fed. Reg. 3244, 3257 (Jan. 12, 2001) (emphasis added).

it must undertake a *site-specific analysis* to determine the *nature of individual stands to be logged*. The Scoping Notice does not reflect that the Forest Service undertook such analysis. In any subsequently prepared NEPA document, the Forest Service must describe, specifically, whether and how each treatment type and unit will comply with the Roadless Rule requirement that permits removal of only “generally small diameter trees.” Without this information, neither the Forest Service nor the public can be assured that Forest Service will limit logging within Roadless Areas to that allowed by law.

D. The Forest Service Must Ensure that Logging Will Maintain or Improve One or More Roadless Area Characteristic

The exception the Forest Service is likely to invoke to allow logging in IRAs requires that logging “will maintain or improve one or more of the roadless area characteristics.”²⁵ The Scoping Notice asserts that the purpose of the project is to, “enhance the resiliency of forest ecosystems to current environmental stressors, including drought, wildfire, insects and diseases, and to foster their capacity to adapt to future climate conditions,” (p. 7) but nowhere asserts whether or how the project will “maintain or improve one or more roadless characteristics.”

Virtually all roadless area characteristics identified in the Roadless Rule could be degraded by logging, the use of heavy equipment and skid trails, and pile burning. Further, the analysis concerning impacts to roadless characteristics requires a highly site-specific analysis, given the regulation’s emphasis on “*locally identified* unique characteristics.”²⁶ Thus, the only way to determine whether a project may comply with these provisions is for the Forest Service to undertake a site-specific analysis that maps the roadless areas at issues, reviews the values of each roadless area to be impacted by specific logging treatments at specific locations, and evaluates the impacts of the proposed action at the stand-specific level, with stands broken down by vegetation type, at a minimum. Because the Skyline HFRA project would approve numerous, ill-defined tree removal and other actions across multiple roadless areas over an indeterminate number of years, the Forest Service must demonstrate how it can ensure compliance with this Roadless Rule exception.

Further, the proposed logging projects will likely degrade, or at least are unlikely to “maintain or improve,” most of the roadless area characteristics. For example, the use of heavy equipment, including masticators, and the use of pile burning, which can scarify soil, is incompatible with maintaining or improving “[h]igh quality or undisturbed soil, water, and air.”²⁷ Logging and burning would also likely degrade scenic values for years, a potentially significant impact.

The Scoping Notice does not disclose the nature of non-motorized recreation, reference landscapes, or natural appearing landscapes with high scenic quality within the project’s

²⁵ 36 C.F.R. § 294.13(b)(1).

²⁶ 36 C.F.R. § 294.11.

²⁷ *Id.*

roadless areas or assert whether or how the activities proposed over thousands of acres will “maintain or improve” such values.

Unless and until the Forest Service undertakes a specific analysis of *each stand-specific treatment* within each specific roadless area, and how each treatment will impact each IRA’s roadless characteristics, it cannot ensure that it will comply with the Roadless Rule.

The Roadless Rule exception further provides that logging may be authorized in IRAs if the removal of small diameter trees is necessary “[t]o maintain or restore the characteristics of ecosystem composition and structure, *such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period.*”²⁸ Any subsequently-prepared NEPA document should disclose what an “uncharacteristic wildfire” would entail in the impacted ecosystem, and analyze the “range of variability that would be expected to occur under natural disturbance regimes of the current climatic period” for each IRA at issue.

E. The Forest Service Must Take a “Hard Look” at the Project’s Impacts to Roadless Area Characteristics.

As part of its review of the project, the Forest Service must disclose impacts to IRAs and roadless area characteristics.

For example, any subsequently-prepared NEPA document should provide maps displaying roadless area boundaries overlaying plant and animal communities, soil types, wildlife habitat, and treatments proposed so that the public can better understand both the values of each IRA and the potential for proposed treatments to degrade or improve those values. For example, while the Scoping Notice maps disclose where a certain category of treatments may occur, the Forest Service provides no information about the type of trees that may be thinned, lopped, or burned, etcetera. There are no clear distinctions between treatment types for spruce-fir, mixed conifer, aspen, ponderosa, pinyon-juniper, blue spruce, or riparian. Any subsequently prepared NEPA analysis should also address this. In addition, the EA should address habitat for threatened, endangered, proposed, candidate, and sensitive species, as well as species dependent on large, undisturbed areas of land within the roadless areas.

Roadless areas are beloved and staunchly protected by forest advocates because they include the last remnants of undisturbed ecosystems, pure water, critical wildlife habitat and quiet recreation. The Forest Service should tread particularly carefully when proposing management in these areas, and carefully ensure compliance with the law that protects those areas. This is not to say that the Forest Service cannot demonstrate that some treatments in some roadless areas may be necessary and helpful, but the Scoping Notice has failed to do so. Any subsequently-prepared analysis or NEPA document must address, and ensure compliance with,

²⁸ 36 C.F.R. § 294.13(b)(1)(ii) [emphasis added].

the Roadless Rule and disclose how the proposed action will impact and protect roadless area values.

F. The Forest Service Should Analyze an Alternative that Specifically Protects Old-Growth Trees and Limits Logging in IRAs.

We appreciate that there's an alternative that will consider an absence of treatment in IRAs; however, we request that the Forest Service analyze an alternative that allows for treatment in IRAs with more stipulations. For example, the Forest Service should consider an alternative that permits TSI, thinning, and mastication treatments outside roadless areas, but limits those treatments inside IRAs. In this alternative, retention of old-growth trees and old-growth forest characteristics should be prioritized. Additionally, manual methods, including hand-thinning and low-impact prescribed burning, should be the method of treatment with no or minimal pre-treatment clearing activities. This would still allow the Forest Service to provide treatment within IRAs but provide more protection for old-growth trees with the use of treatment tools that are less damaging and surface-disturbing than mechanical treatments.

VI. Assessment & Monitoring

A robust plan for assessment and monitoring is necessary to ensure that proposed actions are meeting project goals and to determine if adaptive management changes should be implemented. The typical methods of assessment, such as utilization or trend, may be helpful but are not adequate to determine if progress is being made. This requires more detailed quantitative data over time. Please address this in the subsequent analysis by developing a monitoring plan that outlines protocols and establishes specific, objective, quantitative goals for all the expected outcomes, including triggers for adaptive management. Important indicators of landscape health should be included, such as vegetation diversity (species, functional and structural groups), percent cover of exotics, and percent cover of bare ground.

VII. Elements of an Alternative

We submit the following components to be considered in the Forest's analysis of alternatives, preferably to be incorporated into the preferred alternative in subsequent analysis. If they are not incorporated into the Forest's preferred alternative, we request that they be analyzed as part of a separate alternative alongside the preferred alternative. We believe that these are reasonable and fall within the scope of the purpose and need of the project:

- Large old trees will be retained as much as possible. Trees meeting the old-growth criteria²⁹ will be protected from treatments. Treatments will be designed to accomplish these goals. Particular care will be taken to preserve large old pinyon pine, juniper, ponderosa, and Douglas fir trees.

²⁹ <https://www.fs.usda.gov/sites/default/files/mature-and-old-growth-forests-tech.pdf>

- Chaining nor high flotation treatments will take place where old-growth trees of any species occur. In addition, ponderosa pine will not be removed as part of these treatments.
- Uncharacteristically high fire intensities in low-elevation areas will be avoided, and fire will be prevented from burning into areas where cheatgrass is established and likely to expand post-fire.
- Any planting and seeding undertaken as part of the project will consist only of native species.
- Mechanical and mastication treatments will not take place inside Inventoried Roadless Areas. Roadless Area treatments may include hand-thinning and low-impact prescribed burning with no or minimal pre-treatment clearing activities.
- Site-specific prescriptions will be developed (our recommendations on general treatment prescriptions for various vegetation types including pinyon-juniper, ponderosa pine, aspen, and dry mixed conifer forests provided above.)

VIII. Conclusion

We are grateful for the opportunity to provide scoping comments on this Proposed Action. Please let us know if you have any questions about anything contained in this set of comments. We believe that there are many topics worthy of further discussion associated with this project, and that such discussions are generally most productive out in the field with everyone looking at the same conditions on the ground. Thus, we suggest that before the Forest begins the process of preparing its subsequent analysis, a field tour should be planned to visit a variety of areas within the project area. Please let us know if this could be arranged, and how we might help in facilitating such a field tour taking place.

Sincerely,



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