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Comments: Comments from Project Eleven Hundred and Western Watersheds Project are attached.

Thank you,

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Overview

A Programmatic Environmental Impact Statement (PEIS) featuring a range of alternatives is appropriate for this multi-year program of prescribed burning of multiple forest and shrub types across the Fishlake National Forest (FLNF), which is also heavily grazed by cattle, elk, deer, and sheep; and which is in the midst of drought occurring most years.

The program as proposed by FLNF emphasizes annually burning an average of 40,000 acres per year in a suite of prescribed fires as an effort to correct [ldquo]lack of fire[rdquo] over the last [ldquo]100+ years.[rdquo] There is no precedent for this amount of prescribed fire in diverse vegetation types. A distinct and reasonable alternative would emphasize prioritizing prescribed fires (a) where destructive wildfire is imminent; (b) where burns would contribute to mosaics of vegetation and preservation or creation of refugia; and (c) at a size and number of burn projects that can be adequately planned on a site-specific basis, managed, and monitored with available FS resources and expertise. A PEIS would analyze the environmental and social consequences of both (or additional) alternatives, and would allow for public review of subsequent prescribed fire projects tiered to the PEIS.

As noted in CEQ guidance regarding Effective Use of Programmatic NEPA Reviews¹:

One advantage of preparing a programmatic NEPA review for repetitive agency activities is that the programmatic NEPA review can provide a starting point for analyzing direct, indirect, and cumulative impacts. Using programmatic NEPA reviews allows an agency to subsequently tier to this analysis, and analyze narrower, site- or proposal-specific issues.

In cases where a . . . broad project analysis identifies but does not provide sufficiently in-depth analysis for potential future actions, then subsequent analyses are appropriate and are referred to as [ldquo]tiered[rdquo] analyses.

CEQ recommends agencies give particular consideration to preparing a PEA or PEIS when: . . . (3) making decisions on common elements or aspects of a series or suite of closely related projects.

General comments

The Proposed Action for Scoping fails to consider woody vegetation understory. The proposal indicates virtually no desired conditions or plans for post-fire understory vegetation beyond formally listed (threatened, endangered, sensitive) species and cheatgrass or noxious weeds. The word [ldquo]native[rdquo] does not occur in the scoping document. The single project design feature (p.8) for [ldquo]Plants[rdquo] is that [ldquo]Treatments would not occur in areas that contain any listed plant species.[rdquo] [Note that this is potentially contradictory to the Project Design Feature for Threatened, Endangered, and Sensitive Species[rdquo] (p. 9), i.e., that an [ldquo]appropriate specialist[rdquo] will recommend [ldquo]how best to

proceed” in such areas.]

There is little evidence the FLNF desires to establish ponderosa pine, mountain brush, oak, pinyon, juniper, aspen, or mixed conifer sites as anything other than wildfire-resistant woody vegetation sites, irrespective of native biodiversity.

There is no mention of desired conditions for post-fire understory, though prescribe- burned areas will be vulnerable to increased solar exposure, drought, and ungulate grazing and browsing. For instance, the Proposed Action for Scoping (at 1) observes that the “increasing density of trees and brush is limiting wildlife movement and forage availability.” This implies that post-fire conditions will make “forage” more available for livestock as well as “wildlife”, i.e., elk and deer.

The FLNF does not acknowledge that a site that formerly had become dense trees or shrubs will require time to re-establish or establish native understory (forbs and their pollinators, grasses, shrubs) associated with more open overstory. In light of drought, increased heat, and this early-seral state will have been rendered particularly vulnerable by the prescribed burning.

The Proposed Action for Scoping fails to acknowledge climate change current and predicted impacts. The word “climate” does not appear in the scoping document. As noted in the 2016 Final CEQ guidance on climate change,² climate change may make the FLNF more susceptible to many types of impacts and render it less resilient to environmental impacts apart from climate change (e.g., ungulate grazing). Climate change can make a resource, ecosystem, human community, or structure more susceptible to many types of impacts and lessen its resilience to other environmental impacts apart from climate change. This increase in vulnerability can exacerbate the effects of the proposed action. [Emphasis added].

While the Proposed Action for Scoping (at 2) refers to evaluating departures from the “natural” fire regime and current and historic ranges of mean fire return, the FLNF gives no indication that climate change, with its droughts, higher temperatures, earlier snowmelt, etc. is even taking place within southern and central Utah or that this climate change might alter the response of its forests and understory to wildland and prescribed fire. In southeastern Utah on Cedar Ridge, juniper dieoffs are being experienced. On the lower slopes of the La Sal Mountains in the Manti-La Sal NF, numerous pinyon have died or are exhibiting insect infestations amid drought. What is happening to different sagebrush species? Mountain brush? Wet and dry mixed conifer communities? The year 2020 was the driest year recorded in Utah. And yet the FLNF, according to the Proposed Action for Scoping appears to be planning to rush in, on an unprecedented scale, to burn its way back to “natural” fire regimes (unaffected by climate change?) and “resiliency of vegetation communities.”

The CEQ indicates that the FLNF needs to examine more of the affected environment than increased threat of wildfire:

An agency should identify the affected environment to provide a basis for comparing the current and the future state of the environment as affected by the proposed action or its reasonable alternatives. The current and projected future state of the environment without the proposed action (i.e., the no action alternative) represents the reasonably foreseeable affected environment, and this should be described based on authoritative climate change reports, which often project at least two possible future scenarios. The temporal bounds for the state of the environment are determined by the projected initiation of implementation and the expected life of the proposed action and its effects. Agencies should remain aware of the evolving body of scientific information as more refined estimates of the impacts of climate change, both globally and at a localized level, become available. [Emphases added.]

The Proposed Action for Scoping inaccurately claims numerous woody vegetation types are “fire-

dependent[rdquo].

The scoping document describes eight distinct vegetation communities as [ldquo]fire- dependent.[rdquo] In fact, perhaps only ponderosa pine can be accurately described as fire- dependent.

Oak is well-adapted to fire

Persistent pinyon-juniper is not fire dependent.

Persistent aspen (i.e., aspen with no significant conifer component) is not fire dependent, but can recover from fire. Prescribed fire in mixed-conifer aspen will result in aspen sprouting, which will be vulnerable to ungulate browsing.

[ldquo]Mixed conifer[rdquo] is a lumped category, including both wet and dry mixed conifer. The dry mixed conifer has a more frequent fire return.

Most mountain brush species can derive benefits from fire and are fire-adapted. Curl-leaf mountain mahogany does not sprout after fire, though seedlings (which are often heavily browsed by deer and other ungulates) can be seen after a fire (Stanley Kitchen, personal communication). Curl-leaf mountain mahogany can be [ldquo]old growth[rdquo][ndash] one specimen that was cut down was 1,350 years old.³

Sagebrush communities can recover from fire, but the threat of postfire invasion or expansion of invasives such as cheatgrass is large. As noted by Kitchen and MacArthur,⁴

Prescribed fire, or wildland fire use, should be limited to stands where perennial grasses and forbs are sufficiently abundant to preclude the risk of expansion by cheatgrass or other fire tolerant invasives.

Where, in FLNF sagebrush communities are [ldquo]perennial grasses and forbs . . . sufficiently abundant to preclude the risk of expansion by cheatgrass[rdquo]? With an objective of burning 40,000 acres a year, how refined does the FLNF plan to be with its prescribed fires regarding where cheatgrass expansion is and is not a risk?

Although spruce is not mentioned on p. 1 as one of the [ldquo]fire-dependent[rdquo] vegetation communities, burning of spruce is contemplated in Project Design Features for Timber, p. 9].

The Proposed Action for Scoping proposes an infeasible and risky level of annual prescribed fire.

In the past ten years, the largest acreage burned by the Fishlake NF in a single year has been 14,705 acres (Russell Ivie, personal communication, April 10, 2021). The proposal to burn an average of 40,000 acres annually is almost three times the acreage that the Fishlake has ever prescribe-burned in any of the past ten years. A few FLNF examples illustrate the ecosystem risks inherent in such large acreages of prescribed burns:

In 2020, the Richfield Ranger District was unable to control livestock entry into a rested allotment due to inability to complete reconstruction of allotment fencing burned the previous year in a prescribed burn of a few thousand acres.

Research by BYU doctoral student Aaron Rhodes⁵ on four-way exclosures on post-prescribed fire areas on Monroe Mountain of the Richfield RD has shown that recruitment of new aspen to form a new overstory is not occurring at

particular FLNF sites. Such aspen clones could be permanently eliminated. The prescribed fires were intended to

restore aspen.

The Biological Evaluation for aquatic species on Richfield Ranger District 6

describes significant impacts following a prescribed fire on the FLNF:

A prescribed fire on Shingle Creek in 2002 burned about $\frac{12}{100}$ mile of stream bottom in a high intensity burn resulting in high fire soil severities in the riparian area. Fish were absent from the burned area for several weeks following the fire, and monitoring found about 80% fewer fish in the burned area for 2 years following the fire. (unpublished data in FNF SO files).

Fish numbers returned to near normal levels 5 years following the burn, but a heavy infestation of cheatgrass invaded upper streambanks and stream terraces, likely increasing future fire risk to the stream and sediment erosion from upper banks into the stream.

The scale of 40,000 acres/year poses numerous risks of significant impacts, including but not limited to:

The cost or lack of availability of sufficient native seed to restore native vegetation where needed would likely result in establishing even more non-native vegetation on the FLNF. Past FLNF seedings have led to smooth brome monocultures in many meadows, crested wheatgrass dominance in many sagebrush areas, and establishment and spread of other perennial, non-native pasture grasses.

There is limited staff to annually identify where fire needs to be planned on 40,000 acres to avoid burning natural refugia or create desired refugia.

There is insufficient MLNF staff or funding to simultaneously :

fight wildfires that may arise while large prescribed fires (40,000 acres) are underway;

undertake pre-fire site-specific assessments (e.g., of archaeological sites and cheatgrass) on sites totaling 40,000 acres/year

plan boundaries and strategies for the following year's 40,000 acres of prescribed fire projects in diverse woody vegetation types and sites while monitoring outcomes of previous years' 40,000 acres of prescribed fires;

deploy personnel on multiple fires on multiple districts and vegetation types totaling 40,000 acres in a given year;

reconstruct burned livestock infrastructure from previous year's (or years') 40,000 acres of prescribed fires;

assess need for seedings, and monitor seedings and/or re-seedings on 40,000 acres; and

assess post-fire native vegetation diversity or conditions on annually accrued increments of 40,000 acres/year in order to determine whether:

desired conditions are being met

burned plant or wildlife species have been extirpated from the burn site

goals for retaining unburned patches were met

cheatgrass or noxious weeds are spreading;

Control cheatgrass that has increased on post-prescribed fire sites; and

Revise plans in light of adaptive management based on monitoring.

The Proposed Action for Scoping fails to provide evidence of the ability of FLNF to control the spread of cheatgrass. The FLNF, to our knowledge, has never presented evidence of its ability to effectively reduce cheatgrass. The FLNF needs to indicate:

the current FLNF acres infested with cheatgrass within potential prescribed fire areas; and

the number and location of cheatgrass acres where the FLNF believes cheatgrass has been reduced.

The FLNF must ensure compliance with the roadless area conservation rule and disclose impacts to roadless areas.

The Fishlake National Forest manages more than 700,000 acres of inventoried roadless areas (IRAs). See U.S. Forest Service, Roadless Area Conservation Rule Final EIS, Vol. 2 at 185 (map of Fishlake National Forest IRAs), available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsmrs_072322.pdf (last viewed May 13, 2021), and map below.

Map in attachment

It appears that much of the landscape the Fishlake NF proposes to treat via the Forestwide Prescribed Fire Restoration Project is within IRAs. Yet the scoping document fails to mention the existence of IRAs, let alone the values they contain.

This is a significant and disturbing oversight because the Forest Service nationally has recognized that roadless areas merit special protection and management, direction that the scoping document ignores. In any subsequent NEPA document, the Fishlake National Forest must both: (1) disclose and analyze the potential impacts on roadless values pursuant to the National Environmental Policy Act; and (2) disclose and analyze whether and how the proposed action will comply with the Roadless Area Conservation Rule.

The U.S. Forest Service adopted the Roadless Area Conservation Rule (Roadless Rule) in 2001 [ldquo]to protect and conserve inventoried roadless areas on National Forest System lands.[rdquo] Forest Service, Special Areas, Roadless Area Conservation, Final Rule, 66 Fed. Reg. 3244 (Jan. 12, 2001). The rule observed:

Inventoried roadless areas provide clean drinking water and function as biological strongholds for populations of threatened and endangered species. They provide large, relatively undisturbed landscapes that are important to biological diversity and the long-term survival of many at risk species.

Inventoried roadless areas provide opportunities for dispersed outdoor recreation, opportunities that diminish as open space and natural settings are developed elsewhere. They also serve as bulwarks against the spread of non- native invasive plant species and provide reference areas for study and research.

66 Fed. Reg. at 3245. The Roadless Rule does not prohibit prescribed fire. And in many cases, prescribed fire may be appropriate and helpful in maintaining and restoring natural ecosystems within IRAs.

However, the Roadless Rule [ldquo]prohibits road construction, reconstruction, and timber harvest in inventoried

roadless areas because they have the greatest likelihood of altering and fragmenting landscapes, resulting in immediate, long-term loss of roadless area values and characteristics.[rdquo] 66 Fed. Reg. at 3244. See also 36 C.F.R. [sect] 294.12(a) (generally prohibiting road construction); 36 C.F.R. [sect] 294.13(a) (generally prohibiting timber removal).

The Roadless Rule contains narrowly tailored exceptions to the tree removal prohibition:

Notwithstanding the prohibition in paragraph (a) of this section, 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.

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 [sect] 294.11.

To improve threatened, endangered, proposed, or sensitive species habitat; or

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;

The cutting, sale, or removal of timber is incidental to the implementation of a management activity not otherwise prohibited by this subpart.

36 C.F.R. [sect] 294.13(b)(1), (b)(2) (emphasis added).

The Roadless Rule defines [ldquo]roadless area characteristics[rdquo] as including:

High quality or undisturbed soil, water, and air;

Sources of public drinking water;

Diversity of plant and animal communities;

Habitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land;

Primitive, semi-primitive nonmotorized and semi-primitive motorized classes of dispersed recreation;

Reference landscapes;

Natural appearing landscapes with high scenic quality;

Traditional cultural properties and sacred sites; and

Other locally identified unique characteristics. 36 C.F.R. [sect] 294.11.

The Roadless Rule anticipates that the Forest Service will engage in a highly site-specific analysis before it can consider tree removal in IRAs, given the regulation[rsquo]s emphasis on [ldquo]locally identified unique characteristics.[rdquo] Id. (emphasis added).

The proposed action here will involve tree removal via thinning, slashing, [ldquo]brushing,[rdquo] chipping, mastication, and [ldquo]line construction,[rdquo] the latter of which will apparently involve the elimination of vegetation over an undisclosed width and length to create a fire line.

In the context of this proposed action, treatments include not only the type of fire applied to achieve an objective, but also the pre-fire actions, also known as burn preparation, needed to facilitate the application of fire. These may include line construction and vegetation treatments (brushing, pruning, thinning, etc.) that allow firefighters to better control the extent and intensity of prescribed fire

Proposed Action for Scoping at 3. [ldquo]Hand thinning, slashing, and piling may be used to lower or concentrate existing surface and ladder fuels.[rdquo] Id. at 5. [ldquo]In some limited cases, constructed fireline (handline or mechanical) may be needed to augment existing features.[rdquo] Id. (emphasis added). [ldquo]Limited mechanical chipping and mastication of ladder fuels may be used to reinforce control lines or as a pre-treatment to increase safety where people are working.[rdquo] Id. (emphasis added).

Although the proposed action will involve an undisclosed amount of timber removal and line construction, including apparently across tens of thousands of acres of IRAs, the Forest Service fails to disclose which Roadless Rule exception the agency intends to invoke, which makes it difficult for the public to understand how the agency intends to comply with the Rule. This omission also makes it appear that the Forest Service has failed to understand that the Rule applies to this project.

If the Forest Service intends to invoke exception (1), then the Forest Service must ensure that thinning, line construction, and other tree removal will involve only the removal of [ldquo]generally small diameter timber,[rdquo] and must explain how the agency will ensure such a result. 36 C.F.R.

[sect] 294.13(b)(1). Further, the agency must explain how the project will either improve threatened, endangered, proposed, or sensitive species habitat, or will [ldquo]maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects.[rdquo] Id. It must also explain how the proposed action will [ldquo]maintain or improve one or more of the roadless area characteristics.[rdquo] Id. If the Forest Service intends to invoke exception (2), it must explain why thinning, line construction, and other tree removal [ldquo]is incidental to the implementation of a management activity,[rdquo] rather than a key component of it. 36 C.F.R. [sect] 294.13(b)(2). The Forest Service has failed to invoke either exception.

Mechanical and other vegetation removal treatments are likely to degrade roadless characteristics, and such potential damage must be disclosed on a site-specific basis to comply with NEPA. For example, the use of mechanical equipment, line clearing, and [ldquo]cross-country motorized vehicle travel[rdquo] (Proposed Action for Scoping at 5) contemplated by the proposed action may introduce and spread noxious weeds, disturb soils, degrade wildlife habitat, and degrade natural appearing landscapes with high scenic quality, among other impacts. Any NEPA document the Forest Service prepares must address these impacts.

For example, each of the IRAs within the Fishlake NF likely has important habitat for various wildlife species, including deer, elk, and bighorn sheep, including some winter ranges and concentration areas. These species, as well as many others, function best in an environment that has no, or only minimal, human presence. The Forest Service must disclose the impacts of fire, thinning, motor vehicle use, line construction, etc., to these species and the refugia that IRAs provide.

Further, we urge the Forest Service to design and implement treatments within any IRA to

minimize the impacts to roadless area characteristics.

The Forest Service should consider an alternative in detail that protects IRAs by:

Barring mechanical treatments in IRAs;

Barring off-road motor vehicle use in IRAs;

Barring line construction in IRAs; and

Adopting a diameter limit to ensure that only small-diameter trees are removed.

Such a reasonable alternative would likely still accomplish some or all of the project purpose and need while providing additional protection for any IRA's undisturbed character.

We note that legal and agency precedent require the consideration of alternatives that limit or eliminate harm to IRAs. For example, the Rocky Mountain Region last year upheld an objection to the Landscape Vegetation Analysis (LaVA) project on the Medicine Bow National Forest in Wyoming where the EIS failed to consider an alternative that would have eliminated treatments in inventoried roadless areas. See Forest Service Rocky Mountain Region, Medicine Bow Landscape Vegetation Analysis Project (LaVA) Summary of Reviewing Officer's Instructions (June 10, 2020) at page 4, available at https://www.fs.usda.gov/nfs/11558/www/nepa/106251_FSPLT3_5334929.pdf (last viewed Aug. 31, 2020). The Medicine Bow NF ultimately approved the project but [d]exclude[d] inventoried roadless areas from treatment. Medicine Bow Routt National Forest, Medicine Bow Landscape Vegetation Analysis Project Record of Decision (Aug. 13, 2020) at 3, available at https://www.fs.usda.gov/nfs/11558/www/nepa/106251_FSPLT3_5334953.pdf (last viewed Aug. 21, 2020). Further, last year the Tenth Circuit set aside the North Fork coal mine exception to the Colorado Roadless Rule for failure to consider an alternative to protect key roadless values. *High Country Conservation Advocates v. United States Forest Serv.*, 951 F.3d 1217 (10th Cir. 2020).

We note that the scoping report contains language that may be aimed at requiring additional environmental review before approving timber harvesting that could only occur under an exception to the Roadless Rule. The report states:

It is important to note that this proposed action does not include the use of timber harvesting systems. In areas where specialists determine that fuel loading and/or stand structure is such that prescribed fire behavior might exceed acceptable thresholds and pose risk to prescriptive objectives and/or HRVAs, prescribed fire alone may not be the best treatment. In these situations, pre-treatment using timber harvest could be planned under a separate NEPA process and decision.

Proposed Action for Scoping at 3. This discussion does not mention the Roadless Rule. It is also far from definitive as to when, if ever, the agency would prepare [d]separate[rdquo] NEPA before approving timber harvest, because the agency uses conditional language: [d]timber harvest could be planned under a separate NEPA process and decision.[rdquo] Id. (emphasis added). Nor does it address whether the [d]separate NEPA process[rdquo] the agency could undertake would be a cursory categorical exclusion or an environmental assessment. If the Forest Service's intention with the scoping report's language is to reassure the public that the Forest Service will undertake no timber harvest in IRAs without an EA, then we request that the Forest Service make that explicit in any environmental analysis prepared for this project.

Roadless areas include the last remnants of forests not crisscrossed by roads, providing pure water, critical wildlife habitat and quiet recreation. The Forest Service should tread particularly carefully when proposing management in these areas. This is not to say that the Forest Service cannot demonstrate that prescribed fire

projects here may be necessary or helpful. Because the scoping report fails to acknowledge the existence of roadless areas, it has failed to make that case here.

A Programmatic Environmental Impact Statement (PEIS) should be prepared

The Proposed Action for Scoping appears to propose prescribed fires over an unspecified number of years over multiple forest types with no further public-responsive NEPA beyond an Environmental Assessment that would declare a Finding of No Significant Impact. This would effectively bypass NEPA for many years. The prescribed fire program should be developed with a Programmatic Environmental Impact Statement (PEIS), with annual programs tiered to the PEIS with public review and input.

Impacts of fire/climate change/ungulate grazing are significant.

Prescribed fire actions on the FLNF are being proposed across a 1.47 million acre forest within a complex of three simultaneous conditions: (1) fire (both prescribed and wildfire), (2) regional climate change (specifically increasing temperatures,⁷ repeated drought, and dieoffs), and (3) heavy ungulate grazing and browsing (pre- and post-fire). All three of these conditions reduce woody and herbaceous vegetation biomass, root reserves, and above-ground production on at least a temporary basis and facilitate invasive species. In turn, these impacts on vegetation adversely impact multiple vertebrate and invertebrate wildlife species and their habitat. The FLNF does not acknowledge how prescribed fire may combine with drought, increasing temperatures, and ungulate grazing to reduce, rather than increase [ldquo]the health and resiliency of these ecosystems.[rdquo]

Attempting management of prescribed fires at 40,000 acres/year poses risk of irreversible and/or irretrievable commitment of resources.

The stated Need for the Project includes reducing the risk of uncharacteristic wildfire, increasing plant vigor and resiliency of vegetation, and improving the proper ecological function of vegetation communities and wildlife habitats (Proposed Action for Scoping at 2). However, despite apparent Forest Service confidence that they can control prescribed fires on tens of thousands of acres per year (based on no track record or precedent), the proposed annual acreages of 40,000 acres of prescribed fire and seeding may result in conditions contrary to the stated Need for the Project, including, but not limited to:

Irretrievable loss of old growth (e.g., ponderosa pine, persistent pinyon-juniper, pinyon, juniper)

Irreversible conversion of vegetation types by expansion of cheatgrass dominance and subsequent reduced fire frequency interval.

Excessive burning of a watershed resulting, for instance, in subsequent loss of cutthroat trout populations.

Unintended or unacknowledged burning of refugia such as goshawk breeding habitat, boreal toad hibernacula, old growth ponderosa pine, persistent pinyon- juniper stands, or old growth mountain mahogany.

Irretrievable loss of persistent aspen clones previously depleted by decades of lack of recruitment.

Irreversible transformation of pinyon-juniper stands to juniper⁸

Permanent establishment of non-native vegetation due to extent of acreage needing seeding and lack of available native seed.

Irreversible conversion of native plant communities due to establishment and spread of seeded non-native plant

species.

While the above impacts can result from wildfire, a focus on acreage goals for prescribed fire projects rather than a focus on numerous, targeted small fires runs the risk of producing the very effects of wildfire that are supposedly being prevented.

A PEIS allows tiered NEPA projects to insure meaningful, current site-specific information in diverse forest types and conditions.

If the PEIS is sufficiently detailed regarding such elements as how sites will be assessed, selected, and prepared for prescribed fire; what desired post-fire conditions will be for the eight major woody vegetation communities slated for prescribed fire; how droughts will alter plans; and the processes and triggers for invoking adaptive management, the tiered NEPA documents will not be time-consuming. The public will be able to partner with the FLNF in providing observations, data, and suggestions.

Undertaking projects simply by internal prescribed fire burn plans and internal implementation checklists provides no assurance to the public that burned sites are being monitored, prescriptions are being followed, desired post-fire conditions are being met, and that needed course corrections are being made.

A PEIS insures public accountability at the tiered site-specific project level. The current proposal for an EA provides that prescribed fire, site-specific burn plans and implementation checklists will be prepared prior to prescribed fire projects. Those are internal and pre-fire. The proposal describes no route for accountability to input by the public as projects are planned, implemented, or reviewed over years and in numerous woody vegetation types. There is no indication Determinations of NEPA Adequacy would not be used for projects, with no commitment to public review or input. There is no commitment to responsiveness to pre-fire site condition information submitted by the public and which the FLNF may not have or has not acknowledged; suggestions for modifying a particular burn plan; or concerns regarding outcomes of previous years' prescribed burns. Thus, once the EA is completed, there is virtually no commitment to responsiveness to the public.

A PEIS insures that a range of reasonable alternatives will be compared for environmental consequences.

There is a reasonable alternative to burning 40,000 acres/year on the FLNF. One alternative developed after scoping needs to include at least the following elements:

Fire projects are of the size and number that can be adequately planned, implemented and monitored by the FLNF to insure mosaics of vegetation types throughout the forest and create buffers against wildfire in adjacent areas.

No "determinations of NEPA adequacy" will be issued for annual programs of prescribed burning projects; the public will be provided with the proposed annual plan and will be provided 30 days for review and comment.

Map refugia that will be retained for persistent pinyon-juniper, old growth ponderosa, persistent aspen that lack recruitment due to browsing, potential boreal toad forest hibernacula, current and past pinyon jay breeding sites, archaeological sites, and other uncommon or sensitive sites and incorporate protection of these sites into burn plans.

Reference areas that are not grazed by livestock will be established annually in size and number that are sufficient to compare "burned/livestock" with "burned only" conditions.

Describe within all burn project plans the desired post-fire patch distribution of burned/unburned forests and

protection of refugia.

Within two years of each prescribed burn project, document the post-fire patch distribution and condition of refugia mapped prior to the burn.

Only use prescribed fire in IRAs where doing so can occur without the construction of artificial firebreaks or firelines.

Mechanical treatments are barred in IRAs

Off-road motor vehicle use is barred in IRAs

A specific diameter limit within IRAs will be established to ensure that only small- diameter trees are removed.

Prescribed fire is not planned or implemented in spruce-fir forests.

Seed only with native species.

No more than 20% of any watershed will be burned in a year (including any wildfire that has occurred in that watershed in the previous or current year), unless low- intensity maintenance fire only (e.g., of ponderosa pine).

Mechanically remove shrubs and young ponderosa pine within two driplines of old growth ponderosa pine prior to prescribe burns.

Fence persistent aspen sites post-fire if number of unbrowsed sprouts after one post-fire season is insufficient to provide adequate recruitment (Appendix C, Final EIS for Monroe Mountain Aspen Ecosystems Restoration Project¹⁰).

Rest burn areas from livestock grazing for at least three years after a fire.¹¹

Livestock grazing will not be authorized post-fire in pinyon-juniper or sagebrush communities until the majority of native grasses have seeded and the Forest Service determines that production will support grazing without exceedance of 30% utilization.

Livestock grazing will not be allowed in post-fire aspen until aspen are meeting the abundance and height delineated in Appendix C of the 2015 Final Environmental Impact Statement for Monroe Mountain Aspen Ecosystems Restoration Project).

Livestock will not be returned for the first time to an area that has burned if, on March 15, the Evaporative Demand Drought Index (EDDI, which estimates atmospheric demand on available soil moisture), indicates at least moderate drought (D02) in its 3-month index.

Seventy percent of forbs and native grasses will be retained by post-fire grazing in order to develop and maintain a diverse and resilient native understory appropriate for the woody vegetation type.

Alternatives must be compared

The FLNF needs to compare a range of alternatives for prescribed burning across the forest and across woody vegetation types.

NEPA 102(2)(E) provides the statutory basis for describing alternatives in both Environmental Assessments

(EAs) and EISs :

[the agency shall]. . .study, develop, and describe appropriate alternatives to recommend courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources

Unresolved conflicts concerning alternative uses of available resources exist: there is no established consensus based on the diversity of scoping comments, and there are reasonable alternatives that would be substantially different in design and consequences from the proposed plan.

Footnotes:

1 Available at:

https://obamawhitehouse.archives.gov/sites/default/files/docs/effective_use_of_programmatic_nepa_reviews_final_dec2014_searchable.pdf

2 Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews. 2016. Available at https://obamawhitehouse.archives.gov/sites/whitehouse.gov/files/documents/nepa_final_ghg_guidance.pdf

3 Schultz, W.; Tueller, P.T.; Tausch, R.J. (1990). "Ecology of curlleaf mahogany in western and central Nevada: community and population structure" (PDF). *Journal of Range Management*. 43 (1): 13–20. doi:10.2307/3899112. hdl:10150/644849.

4 Kitchen, S, and D. MacArthur. 2007. Big and black sagebrush landscapes. Chapter 4 in *Fire Ecology and Management of the Major Ecosystems of Southern Utah*. USDA Forest Service Gen. Tech. Rep. RMRS- GTR-202. 2007. https://www.fs.fed.us/rm/pubs/rmrs_gtr202/rmrs_gtr202_073_095.pdf

5 Rhodes, Aaron. 2017. Impacts of a Mixed Ungulate Community on Aspen Forests: From Landscape to Leaf. Doctoral dissertation. Brigham Young University. Available at <https://pws.byu.edu/00000174-ea56-db8e-a176-ee5fd3460000/etd-rhodes-final-r1-pdf>

6 Whelan, James. 2015. Biological Evaluation/MIS Report For Sensitive and MIS Aquatic Species For the Monroe Mountain Aspen Ecosystems Restoration Project. Richfield Ranger District, Fishlake National Forest.

9 Old Growth Climax Ponderosa Pine Forests are defined as having a minimum of seven trees per acre that are greater than 16 inches in diameter and over 200 years old and have a minimum of at least one standing snag per acre greater than 15 inches in diameter. Old growth seral ponderosa pine forests are defined as having a minimum of fourteen trees per acre that are greater than 20 inches in diameter and over 150 years old, have a minimum of two standing snags per acre greater than 15 inches in diameter, and have a minimum of two downed pieces per acre greater than 15 inches in diameter and at least 15 feet in length.

10 Appendix C - Browsing Thresholds and Adaptive Management Pursuant to Aspen Restoration on Monroe Mountain 15 January 2014. In: U.S. Forest Service, Fishlake National Forest, Richfield Ranger District. 2015. Final Environmental Impact Statement for Monroe Mountain Aspen Ecosystems Restoration Project.

11 This is important due to (a) reduced productivity on FLNF (Hoglander, C. 2016. Change in Vegetation Productivity for Three National Forests in Utah, 1986-2011: Dixie, Fishlake, and Manti-La Sal National Forests

available at throughout the FLNF. Unpublished document. Grand Canyon Trust. Available at <https://www.grandcanyontrust.org/vegetation-productivity-analysis-three-utah-national-forests>); (b) ongoing drought (Williams et al. 2020. Large contribution from anthropogenic warming to an emerging North American megadrought. *Science* 368, 314[ndash]318); and (c) risk of establishing or increasing cheatgrass, which will reduce the fire interval).