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## Introduction

Over the last decade the Magnolia Forest Group has spent 9 years working with the USFS on land management on the Boulder Ranger District including the full NEPA process for the Forsythe II Project, as well as participating in the Multiparty Monitoring Group (MMG) established for the Forsythe II Project in the Final Decision Notice (DN). We were also members of the Front Range Roundtable and Landscape Restoration Team. As an organization we work towards sensible forest management in the Arapaho/Roosevelt National Forests, utilizing the best, current scientific information and educating the public.

Below is a summary of our participation in the planning process:

- a. Scoping comments dated July 8, 2022 with Letter to CEQ re CBM—FINAL submitted as additional reference;
- b. Formal comments dated April 18, 2023

Please find below the Magnolia Forest Group's objection to certain components of the Draft Decision Notice and Final EA for the St. Vrain Forest Health Project. Remedies to resolve said objections are written in **Bold** at or near the end of each section.

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## Technical

- In the Biological Evaluation (BE) report the page numbers start over multiple times meaning there are 4 page 2s, and some pages without page numbers at all up until page 18. This means the whole page count is skewed making it challenging to find the correct references listed in Appendix E. **Please correct.**
- A substantial portion of the WUI Mitigation Zone and PODs are not colored as manual, mechanical or prescribed fire. Which treatments would be applied? (See PEA Response p. 5, II.) **Resolution is identified under (Public Involvement).**
- HSWF 7(b) needs to be clarified. It currently uses the wording: “shall be restored/obliterated within one year of completion of use.” “Completion of use” is arbitrary whereas the language used in Appendix E, p. 47 to address the same issue in response to our comment uses the wording: “temporary roads would be closed within a year following the end of *primary management activities* and would not last the lifetime of the project.” (Emphasis added). **Please use the language supplied in Appendix E in the final set of design features.**

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## Appendix E:

Both of the following comments come from Appendix E, p. 69

- In response to our request for "a map showing locations for PC/CC, thinning from below, variable density thinning, and shaded fuel breaks" the USFS responded “The wildlife report section on Canada lynx includes tables 26 & 27 which list acres by treatment opportunity area (manual, mechanical etc.) which are mapped in PEA figure 6. The report also describes the types of treatments that may occur in mechanical vs manual units (i.e. patchcuts/clearcuts, thinning) and notes that “These acres present a maximum cut scenario for this analysis" (page 29) to adequately consider potential impacts to lynx regardless of specific treatment type;”
  - A) Table 26/27 is not a map.
  - B) Table 26/27 is specific to Lyn habitat only, not project wide.
  - C) Said map was requested after reading p.35/36 (which is more easily found as p. 51 - see comments above on Technical) of the BE!
  - D) Actions under Mechanical and Manual are almost identical rendering the table essentially meaningless as it pertains to the question.
  - E) Figure 6 does not show the information that was requested.

**Please supply the originally requested map, and add it to the Project documents. Also see remedy for Public Involvement.**

- In response to our request for “a map showing effective habitat and interior forest overlaid with treatment boundaries for reference in understanding how and perhaps more importantly where treatments overlap” the USFS responded with “See Effective Habitat & Interior Forest section on pages 17-19 of the wildlife report and pages 33 & 42 of the silviculture report for descriptions of how analysis accounted for interior forest within the management action opportunity areas;”
  - These are not maps, and do not address the request!

**Likewise please supply the originally requested map, and add it to the Project documents. Also see remedy for Public Involvement.**

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NEPA Process: PEA Response p. 12, St. Vrain Scoping Comments p. 6

Despite a page and a half in the DDN dedicated to explaining the purpose of the Conditions Based Management NEPA the USFS supplied no supporting legal proof for the approach, nor challenged the legal rulings offered in previous comments that Conditions Based Management EAs do not meet the requirements of NEPA. As such we still hold our previous comments to be true and accurate.

The page and a half of the DDN outlining the need for a Conditions Based Management approach does not outline anything that is not possible under a programmatic NEPA analysis to which subsequent site specific analyses may “tier”. “Because cumulative, repeating impacts were already analyzed at the programmatic stage, the site-specific EAs need only analyze issues unique to the particular sites. This is how programmatic and tiered analysis *should* work.” p. 23 Letter to CEQ (supplied with scoping comments). What the USFS has supplied here as a Conditions Based Management (CBM) EA should be a programmatic analysis. Each “sub-project” would then become an EA tiered to that analysis.

For decades the USFS has misused the EA as a tool for bigger projects than it was designed to be. According to the Council on Environmental Quality’s “Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations #36(a)”: “While the regulations do not contain page limits for EA’s, the Council has generally advised *agencies to keep the length of EAs to not more than approximately 10-15 pages*. Some agencies expressly provide page guidelines (e.g., 10-15 pages in the case of the Army Corps).” (Emphasis added.) In essence the USFS has been trying to a drive sports car over a jeep trail when they should have been driving a high clearance truck. As such they’ve decided the sports car is a bad tool when in reality it excels on the appropriate terrain. If the USFS used EAs appropriately, for bit sized projects such as the sub projects conceived of here, these EAs could reasonably be completed within 6 months. The 18 months it takes to go through an EA process right now is because of the quantity of information the USFS is trying to fit into it and the subsequently lengthy comments it receives back. The tool itself (the traditional EA) is not the problem.

The Draft Decision Notice attempts to explain that the CBM approach meets all of the same requirements as a traditional EA, perhaps most importantly: “Mapping and geospatial data, relevant scientific literature, and existing site information of current conditions . . .” p. 12.

In addition to the section “Appendix E” (above) here are further examples of statements (all from Appendix E of the project documents) that clearly illustrate that the USFS has not provided the requisite mapping, and existing site information to fulfill NEPA requirements.

- p. 31: “With the inclusion of treatment opportunity areas, the Forest Service has identified acreages where management actions will *likely* be applied . . .” (emphasis added)
- p. 44: The final locations of the temporary roads will be dependent upon the implementation plan and agreement between purchasers and the Forest Service.”
- p. 47: “These decisions will be made after on the ground examinations are conducted, and silvicultural prescriptions will vary based on these assessments.”
- p. 67: “Restoration needs will be more clearly identified as more detailed on the ground assessments are made during the early reconnaissance and implementation stages.”
- P. 68: “Photos of previous thinning operations are simply too variable from stand to stand.” - this means there is no predictability of what the outcome of a treatment will actually be.
- P. 68: “Information categories that could be included in a proposal and would inform review of sub-project management action proposals include current vegetation conditions informed by field reconnaissance and available geospatial data, relevant historical reference conditions, values, resources, and assets, anticipated next steps, future management considerations, and monitoring recommendations.”
- p. 69: “Additional maps will be developed during the sub-project planning phase for individual areas within the entire Project Area which will make it feasible to display more things at once;”
- P. 69: “Breaking down the project area into acres by lower and upper montane and subalpine zones would be of limited use: biophysical zones (*evaluated during sub-project planning*) will offer a finer scale approach to tailoring restoration actions to each site.” (Emphasis added) - that is an acceptable answer to the comment, but not the timeframe for providing such information to the public.
- p. 69: “Acres to be managed within the management action opportunity areas will be finalized during the sub-project planning phase.”
- p. 70: “ The specific management action for each unit will be determined when the sub-project management action plans are created.”

The problem with all of this is that while promised, the information is not available for public comment during the NEPA process. Providing site specific, detailed information

to the public after the final project decision has been made fails to conform with NEPA requirements.

In response to our comment about cumulative effects the USFS responds on p. 33 of Appendix E: "It is not unusual for implementation for any project to take a number of years or for conditions to change on the ground during implementation. . . If a significant event impacts the project area, such as a wildfire, or a future project crops up with potential to impact the project area, a supplemental information report analysis will be done."

- A. It is not usual for implementation of a project to take 20 years! Most land managers revisit a NEPA that is 10 years old to see if it is still relevant.
- B. The USFS failed to evaluate partner projects in the "project area", which will have a cumulative effect and are reasonably foreseeable (note cumulative effect does not have to be negative to meet the required need for evaluation).

**In order to resolve these issues without a proper programmatic analysis the USFS needs to adopt all of the suggestions made below under "Public Involvement". The USFS should also supply an additional cumulative effects analysis for the foreseeable partner projects in the project area for full public comment.**

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Public Involvement: PEA Response p. 12, St. Vrain Scoping Comments p. 11

Given that the USFS has failed to provide complete, site specific details during the NEPA process (see sections on Appendix E, NEPA Process, Effective Habitat, and Lynx) for the public to fully evaluate, the public involvement component of this project must be much more robust than it currently is. Out of 5 steps outlined beginning on p. 36 of the Final Environmental Assessment (FEA) the public is only included in 2 of them, and neither of them are clearly composed of more than written feedback.

The FEA also includes language such as: "intended to reflect", "the public would be encouraged to", and "the Forest Service may host public meetings" none of which is legally binding language to actually take into account public feedback, and provide for meaningful public interaction.

It is clear from the statements on pages 36 and 40 respectively that focus areas will be driven not by public input, but by the USFS and partner agencies:

- "The identification of on-the-ground project areas for potential management actions would begin with identification of focus areas. During this phase, partner agencies and the Forest Service (agencies) would annually identify focus areas, or large areas, such as priority watersheds or communities at risk, where individual management actions should be proposed next for implementation."
- "Most of the focus areas/priority management action areas will be identified using the Adaptive Management process model and incorporating best available science

information; Quantitative Wildfire Risk Assessment; existing data sets; known information about sites; and professional judgment."

The public is also completely absent from the monitoring process (step 5), and barely mentioned as a recipient of annual monitoring reports. Numerous public comments, particularly during the scoping period, expressed concern with the USFS's ability to actually follow through on promises made and projects undertaken, particularly with slash piles, and maintenance. These are key aspects of monitoring where it is entirely reasonable for the public to play a role in ensuring sub projects are actually carried out to completion the way they are supposed to be.

Section 102(g)(5) of the HFRA instructs the USDA Forest Service to establish a collaborative multiparty monitoring, evaluation, and accountability process when significant interest is expressed in such an approach. The process can be used to assess the positive or negative ecological and social effects of authorized fuel-reduction projects. In addition, monitoring may be used to determine maintenance needs, which are an incredibly important component to any project.

With a project of this scale and scope, spatially and temporally, the USFS needs to develop a much more robust multiparty monitoring framework with public involvement.

We strongly suggest that the USFS hire a third party, professional facilitator as they have done on numerous past projects in order to maintain the respectful, effective and smooth functioning of the group. In more cases than not personnel change within the USFS causes collaborative groups to fall apart, which is the case in 2 out of 3 relevant projects known to us in Colorado. While the current USFS personnel may be happily willing to fulfill the collaborative commitment laid out in this document the odds are extremely high that few to none of those same people will be present on the District or Forest in 20 years, and very possibly as little as 5-10 years with the rate of turnover. Likewise the odds that the following personnel do not have the same collaborative interest is at least 50%.

**In an effort to ensure the public will have an opportunity to engage and provide feedback at the sub project level (given the lack of site specific details supplied in the EA) the following additions and/or changes should be made to the current language beginning on p. 36 of the FEA:**

- 1) In addition to the framework already listed in the FEA the USFS needs to establish a multiparty monitoring group under Section 102(g)(5) of the HFRA in which any interested member of the public is included. This group must be involved with on the ground monitoring, not just monitoring reports.
- 2) Step 1 as listed in the FEA:
  - a. Prior to the generation of agency proposals engage with the public through meetings and/or webinars to solicit proposals of focus areas, as well as preferred actions (manual or mechanical, thin from below v. variable density thinning, etc.).

- b. The following sentence should be adjusted to read: “Focus areas *will* reflect, integrate, *or* align with the focus areas of community members through their engagement and involvement with the Partnership.
- 3) Step 3 as listed in the FEA:
  - a. The USFS needs to provide *live* engagement opportunities for the public, *which specifically include sub project level design and prescriptions for review and feedback prior to contract finalization and award*.
  - b. The last sentence in this section should be adjusted to read: “The *Forest Service will* host public meetings, webinars, or field trips to explain and assist in understanding of sub-project management action plans.
- 4) The USFS commits to hiring a third party, professional facilitator for Steps 1, 3 & 5.

**We would like to express our support for the statement made in the Watershed Center’s Objection comments under point #1:** “When developing management actions, we feel that a detailed and nuanced approach that explicitly considers the large variability in forest types, fire behaviors, site conditions, and possible management actions within the montane zone (and particularly the upper montane zone) should be documented and made publicly available for individual management units (e.g. via the St. Vrain Forest Health Partnership Story Map).” **We would also like to see this information supplied as a document during Step 3 as outlined above. This quality of information would help to resolve the lack of detailed mapping information available during the NEPA process (see comments above).**

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The WUI Mitigation Zone: PEA Response p. 2,4,5, 10, St. Vrain Scoping Comments p. 23

The WUI Mitigation Zone accounts for 24,781 acres out of a total of 43,250 acres, or essentially 57% of the entire project area.

“WUI mitigation zones are designated to prioritize management actions to minimize the negative effects of wildfire to communities. . .Management actions in these locations that minimize potential fire behavior during peak fire season weather conditions and facilitate fire suppression operations will decrease potential building exposure and result in the creation and maintenance of fire-adapted communities.” FEA p. 29

While we support the desired outcome, we strongly disagree that a WUI Mitigation Zone of 24,781 acres is needed, or will indeed achieve the desired outcome. Though in the context of a POD, the USFS acknowledges that: “PODs boundaries are not designed to be effective on the most extreme fire weather days, but during moderated fire weather days interspersed between extreme fire spread events.” Appendix E, p. 14.

The following case study and quotes in this section come from the documentary “Elemental: Reimagine Wildfire” - release date (streaming): 6/13/2023 (as such this information was not available for the comment period ending 4/18/23).

### Case Study: Greenville, CA:

Some fires are so large, they burn through many fuel reduction projects. The town of Greenville is nestled in the forests of Northern California. Over the past decades tens of thousands of acres have been cut and extensive fuel breaks have been created on the promise that these actions will protect nearby communities, lessen smoke and reduce the costs of firefighting. But driven by winds and extremely dry conditions, the Dixie Fire quickly swept through treated areas and jumped over fuel breaks to burn nearly one million acres and destroy over a thousand homes, leveling most of Greenville. While fuel reduction and timber harvest may have changed fire behavior for better or worse inside the burn, the tens of millions of dollars spent on cutting the surrounding forests did not help local residents, nor did it reduce the firefighting burden and the 6,000 firefighters assigned could not stop the blaze from becoming the state's second largest. (See photos #1 and #2 in Appendix A for treatment placement and fire footprint respectively.)

Despite extensive treatment around the town of Greenville, CA, much like the proposed WUI Mitigation Zone in the St. Vrain Forest Health Project, there was nothing the firefighters could do to prevent the entire town burning.

Jack Cohen, USFS Fire Lab Research Scientist (Ret.) explains further:

"[T]he main point here is that it's a home ignition problem, not a wildfire control problem. The big problem with us defining wildland urban fire disasters as a wildfire problem is that we focus on and put all of our energy into attempting to eliminate the wildfire to begin with. We're 98% successful in our initial attacks. So we're putting our energy into the very difficult margins of control during the severe conditions. And we're not gaining!"

"The 2% of the wildfires that occur end up being extreme, the wildfires that we can't control at initial attack; they're inevitable. Our disasters are wild and urban fire disasters, that are occurring during that 2% of those wildfires. There is no management trend that indicates that we're going to be able to control all wildfires."

The USFS states:

"The proposed treatments would have a beneficial, minor/moderate, long-term impact on reducing the average number of buildings affected by fire starts within the WUI Mitigation Zone during weather conditions similar to the Calwood Fire. Compared to the no action alternative, approximately 16 fewer buildings (62% reduction) are expected to be impacted during the first ten hours after a fire start within the WUI Mitigation Zone. Several additional indirect benefits include quicker response time to fire start locations due to easier access through treated areas and slower fire spread rates as well as more effective suppression operations due to anticipated decreases in fire intensity." FEA p. 47

The expectations here do not align with the reality the firefighters faced in Greenville, CA. As stated by Jack Cohen the USFS (and other agencies) do a fantastic job of responding to and managing 98% of wildfires. So there is no need to improve the USFS's current fire response, or treatments effective under 98% of the scenarios. In



the 2% of scenarios with extreme fire weather when we see the most damage occurring it is unfair and unrealistic to expect firefighters to be able to safely or effectively engage with the fire, WUI Mitigation Zone or not.

The other problem with the above statement from the FEA is that presumably treatment within the WUI Mitigation Zone will reduce structure loss by up to 62% “assuming no or ineffective suppression actions” FEA p. 14. If this modeling was based on such structures having completed home harding and HIZ work the odds are that these structures would survive even without the WUI Mitigation Zone. If this modeling was based on such improvements not being completed at the structure level the likelihood that the WUI Mitigation Zone would protect them is slim as evidenced by the following real world observations.

“One of the interesting things about this photo (see photo #3, Appendix A) is that we have largely forest, both conifer as well as deciduous surrounding, total destruction. And yet when we look, if we back out and we look at where the fire came from, we see that all the trees, the tree canopies are unconsumed before it gets to the total destruction of the mobile home park.” - Jack Cohen

Dr. Alexandra Syphard (Senior Research Ecologist, Conservation Biology Institute) looked at 4,000 homes that either survived or burned in California fires. “There are a range of strategies that can be taken to increase the chance that homes could survive a fire. *Those strategies that are closest to the house are more effective.* By far the most important factors were the structural characteristics that you would associate with *preventing ember penetration* into a structure. *Vent screens, enclosing eaves, multi-pane or double-pane windows and defensible space done from the structure out to five feet, and then going out to about 40-60 feet.* You got some significant benefit of defensible space and anything beyond maybe 60-70 feet was not significantly beneficial, when it comes to structure loss. (Emphasis added.)

Review of recent fires findings suggest that 85% of the branding that ignited structures came from within 300 ft of them. Beyond 900 ft of the structure changes in forest structure had negligible affects on branding. CSFS is currently working with these findings to create new guidelines for structure protection.

**In review of all of this information we would like to see the WUI Mitigation Zone substantially reduced to no more than 900 ft from the structures used for the original modeling.**

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Recreation: PEA Response p. 5 St. Vrain Scoping Comments p. 35

Concerns about illegal/unauthorized recreation show up in many of the comments submitted to the USFS from both the scoping and comment period such as: “I respectfully request creation of actions to inventory, control and manage unauthorized and illegally constructed trails within the SVFHP, especially for those unauthorized trails

within the North St. Vrain Research Natural Area (RNA).” Appendix E, p. 42. The Recreation Specialist Report (RSR) highlights the reality of these issues on the ground:

“There are approximately 100-200 miles of known unauthorized trails that occur throughout the project area. Unauthorized trails are defined as: A trail that is not a forest trail or a temporary trail and that is not included in a forest transportation atlas (36 CFR 212.1). The origins of these include utilization of game trails or old roads from past treatment areas, persistent walking or riding a mountain bike or horse, unknown miles of those leading from private property to National Forest in highly populated and fragmented landscape, and many miles of illegally constructed trails.” p.4

The current situation is enumerated further on p.5 of the Recreation Specialist Report: “Travel Management Planning has not occurred to replace these resources; meanwhile use dynamics have shifted to other locations and other uses have taken over, *primarily with illegal trail construction and single-track motorized use.*” (Emphasis added) RSR p.5

The Recreation Specialist Report goes on to talk about the lack of and need for travel management planning 3 separate times:

“Continued short term effects to biophysical resources from unmanaged uses will likely occur within the project area until comprehensive, landscape level recreation planning is completed.” RSR p. 7

“As settings change due to vegetation treatments, this may provide an opportunity for future recreation planning efforts to realign trails for sustainability and to enhance experiences through proper design for the intended use.” RSR p.8

“Without comprehensive, landscape level recreation planning, continued short term effects to biophysical resources from unmanaged uses will likely occur within the project area.” RSR p.9

Unmanaged recreational uses on USFS property contribute to wildlife issues (see section titled: Effective Habitat below) as well as hydrology, soils, watershed and fishery issues. The last 3 paragraphs starting on p. 11 of the FEA outline current issues for water security related to improperly drained roads.

It is abundantly clear from the issues on the ground as well as the Recreation Specialist Report that a landscape level recreation planning effort needs to be undertaken particularly given that: “It is known that user safety is compromised and *compliance issues escalate when large scale projects such as described in the proposed action are implemented.* “ (p. 5) (emphasis added.)

**In order to resolve this objection only the 754 acres of the Infrastructure component of this project should be undertaken before such landscape level recreation planning has been completed, given that these treatments do not**

**create potential new trail opportunities. At second best the USFS needs to set a deadline for completing such planning no more than 2 years from the date when implementation of the St. Vrain Forest Health Project begins.**

**Additionally we suggest that the USFS prioritize use of ASV or similar equipment during mechanical treatment in order to reduce surface disturbance and the likelihood of recreation use post treatment. Boulder County has successfully used this equipment during some of their operations.**

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Spruce/Fir Treatment: PEA Response p. 7, 10 St. Vrain Scoping Comments p. 14

The Treatment Opportunity Acres in Spruce/Fir range somewhere between 970 (Silviculturist Specialist Report (SSR) p. 35) and 1,018 (BE p. 15). **(Please account for the differences.)** Of these 782 acres fall into primary lynx habitat (BE p. 53) (See further comments under Lynx). It is unknown how many of these acres fall within spruce/fir old growth, which is clearly present in the area based on the Forest Plan Old Growth Map. Base on Table 6 in the SSR it would appear 647 acres or 66.7% (using the 970 acreage total number) qualify as old growth (based on DBH and canopy closure). Within Management Area 3.5, which comprises somewhere between 20.13% (Table 7, p. 108 BE) to 36.1%, (Also Table 7, but p. 8 BE) **(Please correct/align the table names as well as percentages.)** Terrestrial Wildlife 4 states old growth spruce/fir is to be excluded from vegetation management. Are any of these 647 acres within MA 3.5? **If so they need to be removed.**

In response to our former comment on spruce/fir treatment the USFS responded: “POD boundary management in spruce-fir forests is desirable because it will facilitate firefighter and public safety while supporting ingress/egress during evacuations due to wildfire, even if the boundary fails as a control line. As noted in the EA (page 14) the spruce-fir cover type is not a large component of the POD boundaries and the WUI mitigation zone within the project area. Furthermore, management on these sites will be evaluated on a site by site basis where fuels and vegetation specialists will determine whether tree removal will be necessary to achieve the desired condition, or whether the removal of snags and surface fuels will suffice.”

- 1) The USFS did not provide any proof as requested that PODs located in spruce/fir are effective during fire.
- 2) As noted the spruce-fir cover type is not a large component of the POD boundaries. So changes could be made without compromising the overall success of the project.

**Though we still object to the idea that a POD within a spruce-fir cover type will serve as effective control line we are willing to consider the necessity for some**

**treatment if the POD would be used as ingress/egress during a fire (in other words only PODs that follow a known road). In these cases we are willing to see removal of surface fuel and snags done on a manual only basis.**

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Brainard Lake: PEA Response p. 5 St. Vrain Scoping Comments p. 14

Brainard Lake Recreation Area is a gem on the Boulder Ranger District, and highly prized for its natural beauty as evidenced by the number of visitors to the area.

Goals and Direction for this area include the following:

- Limit vegetation treatments in the area to those necessary to address critical matters of visitor safety, forest health, or *aesthetic protection*. Emphasize *retention of existing old-growth sites*. SSR p. 84 (emphasis added.)
- Maintain or improve biological communities to provide a *pleasing appearance* for visitors, complement the recreational values...
- Emphasize the health, sustainability, and *appearance* of these communities to maintain their desirability for recreational use.
- Occasional areas of .... *other associated disturbances outside of designated use areas and travelways* may be evident.  
Forest Plan Ch. 3 p. 58 (emphasis added.)

The clear emphasis for this area in the Forest Plan centers around maintaining the “pleasing appearance” of the forest. To that end, intensive treatment in the POD boundary here would be inappropriate and out of line with the Forest Plan.

The Brainard Lake POD corridor at least partially sits in inventoried old growth spruce/fir according to the Forest Plan map for old growth. Limber pine is also present in the same area with a high likelihood of being determined old growth based on general old growth characteristics. However old growth limber pine was not defined or inventoried in the Forest Plan (FEIS Appendix B, p. 11) It could be assumed that guidance for management activities within Limber Pine would naturally fall in close alignment with that of old growth spruce/fir.

In addition to p. 84 of the SSR (above) the Wildlife Specialist’s Report (p. 17) also states the goal to: “Maintain old growth characteristics. . . in present stands and promote these habitat conditions in stands with the potential for old growth character.”

Old Growth spruce/fir is a minority on the landscape as evidenced by Tables 1 and 2 of the Silvicultural Specialists Report. All other geographic areas in the project contain Management Area 3.5, with standards to “Exclude vegetation treatment of inventoried spruce-fir or lodgepole pine old growth.”

We recognize there may be some reasons for work within the spruce/fir PODs in order to promote safe ingress/egress during a fire. In Appendix E, p. 72 the USFS notes that "...management of these sites will be evaluated on site by site basis where fuels and vegetation specialists will determine whether tree removal will be necessary to achieve the desired condition, or whether the removal of snags and surface fuels will suffice" in response to our previous comment on spruce/fir POD treatment. This leads to the understanding that this approach is practical.

**We are willing to see the POD boundary at Brainard Lake remain if the following changes are made: 1) that treatment be limited in this POD to the removal of surface fuel, snags, and potential limbing; 2) the section of this POD designated for mechanical treatment be changed to manual treatment, which is clearly thought to be sufficient for the majority of the POD located here.**

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Lynx: PEA Response p. 7 St. Vrain Scoping Comments p. 31

As mentioned in our previous comment: "...Snowshoe hares, the favorite prey of lynx, have been observed in many of the east-west gulches on the north-facing side of the gulch down to about 8000'. Those north-facing slopes retain snow all winter and spring, and they harbor dense spruce-fir forests which are the favored habitat of snowshoe hares (Vashon et al., 2012). These gulches and hillsides could provide lower elevation habitat for lynx than the "subalpine" zone cited in the project analysis. . ." The response: "Treatment in spruce-fir types would only occur in where needed in WUI or POD boundaries" does not address our concern as we are aware that spruce-fir types would be treated primarily in POD boundaries.

The many gulches within the project area, which qualify as potential lynx habitat, are also climate refugia, which is a concept outlined in the FEA to promote forest resilience. These refugia generally "occur on moister soils closer to streams and in valleys . . .". FEA p. 8. Because these gulches provide protection from the warmer climate, they can provide wildlife with places that are cool enough for life. In addition to the issue of thinning disrupting the habitat needed by lynx, thinning of the spruce-fir forests within a gulch will allow more sunlight into the forest and dry the vegetation and soil. After thinning, a gulch that is currently a climate refugia may not be one.

As stated previously the maps lack sufficient detail, in this case to see exactly which gulches have POD boundaries. That makes it impossible to make fully informed comments and objections. Based on the best interpretation of the current maps, it appears that at least one east-west rugged gulch just north of Ward is a POD. It is the one that leaves Ward heading eastward and eventually meets Left Hand Canyon Drive. It is slated to be mechanically thinned. Given the steepness of the terrain and the riparian vegetation, mechanical thinning is likely to cause terrible damage. **If indeed**

**the USFS insists on thinning within these gulches, they must limit activity to manual thinning.**

Manual thinning will have a lesser impact to lynx habitat as evidenced by the following statement: "The propose[d] manual/mechanical treatment area in lodgepole where clearcut/patchcuts are emphasized would remove a small amount of lynx habitat (up to 770 acres removed), while up to 443 acres *would be degraded by salvage and mechanical thinning*, and up to 797 acres *may be impacted to a lesser degree by manual thinning*." (emphasis added) P. 109 BA

**Alternatively the POD in question could be located along a road that is parallel to the gulch.** Appendix E, p. 70 "allows for the flexibility [to] manage POD boundaries when they follow, for example, riparian corridors where impacts to the stream etc. need to be avoided." **In the case of the gulch just north of Ward, the POD could be moved to Left Hand Canyon Drive.** That would protect the wilder gulch (likely by the name of Spring Gulch) that does not have a road through it.

In said gulch a stream also runs throughout the spring, summer, and fall months (it's frozen in winter). Page 6 of Appendix B, "HSWF 2 - Riparian Zones, Stream Channels, and Wetlands: Buffers and Other Design Features" states that there must be a 100' buffer from all streams. This should include both timber cutting and vehicle travel. Within lower Spring Gulch, there is only a trail and no road. Moreover, it is within 100' of the stream in many places. This trail should not be used for vehicular travel as per the USFS's own design features.

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**Effective Habitat:** PEA Response p. 2 St. Vrain Scoping Comments p. 30, 31

In the absence of the requested map for Effective Habitat overlaid with treatment boundaries it is not clear how many acres of effective habitat fall within mechanical units (see comments on Appendix E).

The Wildlife Specialists Report states (p. 41): ". . . proposed clearcut and overstory removal treatments alongside existing roads, and *to a lesser degree mechanical thinning and salvage, would diminish the habitat effectiveness by increasing visibility and openness from the roads*. Thinning from below and broadcast burning activities could also modify effective habitat by manipulating cover, but to a lesser degree." (Emphasis added.)

Note that mechanical thinning is specifically called out as diminishing habitat effectiveness. Of further concern is how temporary roads and skid trails can become new trails following project implementation despite efforts to reclaim and obliterate them.

The Recreation Specialist Report (RSR) states: “There are approximately 100-200 miles of known unauthorized trails that occur throughout the project area. . . The origins of these include utilization of game trails or *old roads from past treatment areas*. . .” (p.4) (emphasis added.)

In Appendix E, p. 46 the USFS states: “It is standard practice to require road rehabilitation/obliteration after one year after completion of use, *which would typically not exceed five years post construction*.” (Emphasis added.) Five years is more than enough time for a “temporary road” to be considered a new road/trail by recreationists!

“It is known that user safety is compromised and *compliance issues escalate when large scale projects such as described in the proposed action are implemented*.” (p. 5) (emphasis added.)

The ideal world is one in which all users respect closure notices, and only use authorized roads/trails. However we live in the practical world where some users will take the opportunity to utilize temporary roads and skid trails as new found trail opportunities despite efforts to close and obliterate them. With slow growing conditions in this region, compared to other places in the country, roads and trails take a very long time to revegetate to the point where they no longer resemble a formerly open road or trail.

The RSR notes that: “Rather than following a principle of being “open unless closed to,” this is a shift to “closed everywhere unless specifically open to.” . . . The continued implementation of this management tool *may continue to take years to implement across the district, and additional education efforts are needed for the shift in public understanding and compliance to be met*.” (p. 4) (emphasis added.) It is not realistic to expect that the public at this point will comply with intended, authorized uses.

**In order to stay in alignment with Goal # 95 under Forest Plan Operational Goals for Biological Resources (BA p. 126): “Retain the integrity of effective habitat areas” no mechanical treatment should occur within Effective Habitat.**

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Maintenance: PEA Response p. 9 St. Vrain Scoping Comments p. 18, 19

Throughout the entire project proposal and specialists reports maintenance (in relation to maintenance of vegetation treatment) is mentioned in only 2 instances. 1) With regard to maintenance of PC/CC, 2) Found only in one sentence in the Fire & Fuels Report p. 10: “It is expected that ongoing maintenance burning (second entry prescribed fire) will maintain the project area in the desired fuel and fire behavior condition.”

1) As stated in our earlier comments the USFS has proven repeatedly throughout the Forysthe II Project that they can not maintain lodgepole pine PC/CC by thinning and burning without burning the remaining trees during pile burning. This totally defeats the

point of thinning regen. **The USFS needs to develop a realistic plan for management which either centers around thinning and removing the material offsite, or promoting a fire resistant tree type (namely aspen) instead, which will not be killed when the regen is burned.**

2) While using prescribed fire for maintenance burning is a good premise on which to build a maintenance plan, one sentence comes nowhere close to a plan for maintaining 20 years worth of treatments, or for that matter treatments just over the lifetime of the project! For example how often will second entry burns be implemented? Who is accountable for getting this done on time within the USFS? Will there be additional EAs required for second and third entry burns? (This EA is certainly insufficient for disclosing any positive or negative impacts likely to result from sequential burning.) Besides that point there are over 6,000 acres that are never slated for burning, and which presumably will not be maintained with prescribed fire. How are these acres going to be maintained?

The lack of any substantial maintenance plan generally points to the fact that there isn't one. **For a project of this scale and this cost a thorough maintenance plan, open for public comment, needs to be developed pre-implementation.**

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Chipping/Mastication: PEA Response p.10, 12, St. Vrain Scoping Comments p.22, 29

On page 19 of the FEA it states: "Chipping is likely to be used to facilitate suppression effectiveness in the WUI mitigation zone or along POD boundaries." In alignment with our concern for surface fuel left in POD boundaries and the WUI mitigation zone under mechanical treatment this causes great potential for concern. Nowhere in the FEA, or Fire & Fuels Specialist Report (FSR), Management Cards or Design Features are there specifications added for chipping/mastication.

In January of 2020 the Front Range Roundtable published a mulching guide\* highlighting pros and cons to chipping and mastication, as well as specifications to keep in mind. Key takeaways include:

- Mulching [chipping and mastication] techniques can add significant amounts of woody material to the soil surface. This material persists and remains flammable for at least 10 years in most Colorado forests.
- Rearranging biomass from standing to mulched on the ground can change fire behavior from a crown fire to burning on the surface, which provides more potential opportunities for fire suppression. However, the additional woody material can also increase surface fire duration and intensity, complicating fire containment and magnifying post fire tree mortality and ecological impacts.
  - Also of note is the reaction under severe fire conditions: "During extreme fire conditions (dry, hot, windy weather), reduction of tree and shrub canopy can bring crown fire down to the ground, increasing suppression opportunities.



However, in severe conditions when suppression resources are often strained, mulch commonly burns longer and produces more heat than other surface fuel types. This can complicate fire management and result in elevated levels of surface fire intensity, soil burn severity, tree scorch, and vegetation mortality.”

- The largest knowledge gaps remain in our understudying of wildlife response to mulching, fire behavior and effects when mulch burns, and long term (10 years or more) trends in mulched areas.
- Establishing clear project goals and objectives will aid in determining mulching project specifications. The sole metric of “average mulch depth” is often insufficient management planning detail to achieve the desired mulching project outcomes. We suggest five mulch depth and distribution specifications (with specific target ranges) to help maximize benefits of mulching tools and improve communication of project goals with contractors and project stakeholders.
  1. Distribution of mulch (e.g. XX-XX% of the management area will be covered with mulched material).
  2. Maximum allowable mulch depth (e.g. woody material shall not exceed XX inches within any part of the management area).
  3. Maximum mulch patch size (e.g. continuous mulch cover will not exceed XX area).
  4. Maximum size of mulch pieces (e.g. wood pieces will not exceed XX diameter and XX length).
  5. Average mulch depth (e.g. mulch depths will average XX inches across the management area).

For Fuel breaks to aid fire suppression efforts the suggestions for 1-5 are as follows:

1. Minimize accumulation and encourage discontinuous coverage when possible; ex: mean percent cover of mulched material 20-40%
2. Minimize deep accumulations, especially near expected containment lines, e.g. 4-8”
3. 100 square feet
4. Minimize mulch size to facilitate safe fire operations, e.g. 2’ long by 3” diameter
5. 1-2” to minimize fire residence time and post fire mop up.

**Key follow up questions that need to be addressed are:**

- How will you know this is achievable?
- Do you have stand specific information to calculate the volume of chips that will be created in the stand?
- What will you do if parameters are exceeded?
- How will you know when to chip, or masticate alternatively?

**Given the risks and uncertainties of mulching this treatment card should be removed from the WUI Mitigation Zone. Whenever possible it should be avoided in the POD boundaries.**

**If the BRD does not already have a copy of “Mulching\*” they should immediately get a copy. A Complete set of prescription parameters should also be developed for review by the public and Science Advisory Team that conform to the outline above.**

\*Wolk, BH, Stevens-Rumann, CS, Battaglia, MA, Wennogle, C, Dennis, C, Feinstein, JA, Garrison, K, and Edwards, G (2020). Mulching: A knowledge summary and guidelines for best practices on Colorado’s Front Range. CFRI-2001.

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Staffing: PEA Response p. 4 St. Vrain Scoping Comments p. 4

We are pleased to see that “The issue of invasive plant species is a high priority for the Boulder Ranger District, and we are allocating more and more resources to manage them every year.” Appendix E, p. 5 However to the best of our knowledge the only current weed specialist (or equivalent) for the BRD is at the Forest Level. The last District weed specialist was also the Silviculturalist and TMA for the South Zone. Suffice it to say it does not appear that the issue of invasive plant species has been a high priority for the BRD. According to Table 5 of the FEA there is an estimated 12,000 acres of non native plant infestations, which need to be treated! This is a tall order for one person, let alone someone acting at the Forest level with other Districts to oversee.

On p. 23 of Appendix E the USFS also responds to our previous comment about lack of staffing. **We are willing to consider this issue resolved if the USFS hires a weed specialists (or equivalent) at the District level before project implementation begins; and is able to maintain their current staffing levels.**

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Invasive Plants: PEA Response p. 8 St. Vrain Scoping Comments p. 38

We were pleased to see that the USFS would consider using goats to address appropriate weed populations.

It was and is implied in the EA that chemical treatment of weeds is the least favored in treating non-native invasive plants: “A combination of management actions methods would be used, including: (1) manual and mechanical removal, (2) cultural methods, and (3) chemical treatment.” FEA p. 34

However it is made clear in Appendix E p. 3 that this is not the case: “Most of the weed populations will continue to be treated through chemical means . . .” and on p.2 “While herbicide remains the most used tool of the USFS. . .” Chemical weed eradication destroys soil health with pesticides. Healthy soil is our best option to retain water, support resilience during droughts, and sequester carbon to address the climate crisis.

P. 2 goes on to say: “We are also utilizing partners to help treat invasive species with an emphasis on using manual methods.” The usual invasive plants returning after the forest treatment are mulleins, thistles, and cheatgrass. These three plants are easily controlled by removing and collecting their seed heads. Monitoring and regularly patrolling sites are critical to constantly reducing the seed bank.

**We would like to see the USFS make a written commitment in the DN to use chemical treatment only after manual and mechanical removal, and cultural methods (implemented by the USFS or partners) have failed to meet the purpose and need, and not as a first resort.**

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Other: new material as noted

Page 5 of the FEA outlines the goal of creating Fire Adapted Communities "by utilizing management actions to maximize community safety and fire suppression effectiveness . . ." However no where in the project documents is the creation of new community egress routes examined as an implementation action. The StoryMap, which has been updated with new comments since April 18th, 2023, lists egress concerns multiple times as one, if not the most common comment with regard to forestry & fire.

**If this project is to be truly responsive to community values and needs an additional report, with opportunity for public comment, needs to be created in order to evaluate the creation of egress routes as a potential implementation action.**

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Conclusion:

In the points above we feel we have offered the USFS valid reasons for our concerns as well as reasonable remedies to resolve them. We believe the St. Vrain Forest Health Project can be made better through these changes now and into the future with USFS line officers we have yet to meet. It is our hope that the USFS seeks to resolve any outstanding differences on these topics before issuing a Decision Notice. We would prefer to resolve such issues with the USFS during the Objection period.

Sincerely,

Teagen Blakey  
President  
The Magnolia Forest Group