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First name: Eric
Last name: Frederick
Organization: The Watershed Center
Title: Forest Project Manager
Comments:

3/28/2023
To: United States Forest Service
From: The Watershed Center
RE: St. Vrain Forest Health Project NEPA Comment

The Watershed Center supports the proposed forest management work on national forest lands in the St. Vrain Forest Health Project area and the project goals, which include:
* Improving Forest Resilience
* Restoring Fire Dynamics
* Improving/Creating/Facilitating/Fostering Fire Adapted Communities
* Improving and/or Maintaining Water Security
* Maintaining and Conserving Biodiverse Ecosystems that Provide Diverse Site Characteristics Across the Landscape
* Promoting Resilient Social and Economic Conditions

The Watershed Center is a non-profit organization that aims to protect and restore watersheds for people and the environment, using a collaborative and science-based approach. The Watershed Center leads the St. Vrain Forest Health Partnership, a collaborative of over 100 entities and community members that are working to increase the pace and scale of forest restoration in the St. Vrain Watershed.

In review of the scoping documents, we sincerely appreciate the clear attention paid to the scientific literature and the landscape-scale community values developed by the St. Vrain Forest Health Partnership. Further, we are grateful for the dedication that the ARP has shown to engaging stakeholders throughout the development of this project. We congratulate the ARP on the development of this detailed Environmental Assessment (EA).

We have the following specific comments on the proposal:

1. In the lower montane, shrubland, and shortgrass steppe system, we support tree thinning, slash piling, pile burning, broadcast burning, invasive plant mitigation, sanitation, salvage, and strategic tree planting. We believe the actions outlined in the EA will help to achieve the project goals.
2. Throughout the entire project area, but for montane forests in particular, we emphasize the importance of exercising nuance in discussing current forest conditions in relation to historical conditions, as well as in determining management actions. Forest types and corresponding fire behavior vary dramatically throughout lower and upper montane forests, and the degree to which these forests have departed from historical conditions (and would therefore benefit from restoration to a different structure/composition) varies considerably in accordance with biophysical gradients and disturbance history. Furthermore, forest succession adds an additional

layer of nuance and complexity to assessing conditions, as the same forest can exhibit dramatically different fire behavior at different successional stages. 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) is necessary.
3. In subalpine forests, we do not see adequate scientific consensus in the literature for thinning or developing large openings in the majority of forested areas for the purpose of restoration. As stated in the EA, there is little evidence that these areas are outside of the historical range of variability in fire regime and forest structure/composition. Further, these systems are adapted to high-severity, stand-replacing wildfire, and management can often cause increased invasive species abundance due to disturbance. However, we do believe there are circumstances where these actions would help achieve goals in all forest types:
a. Specifically, we emphasize the importance of 1) fuels reduction projects directly surrounding homes, communities, and infrastructure (within 300 feet of homes/home ignition zone) and 1,000 feet of communities (as described for Potential Operational Delineation (POD) boundaries in the NEPA scoping documents); 2) creating space around aspen stands to promote aspen growth; and 3) fuels reduction projects along POD boundaries that are collaboratively developed and identified with fire districts and local stakeholders.
4. Regardless of forest type and/or vegetation zone, we strongly support the EA's focus on the protection of watershed health and water supplies. In addition to protecting communities, protecting water supplies is one of the key motivations for supporting and enhancing forest health along the Front Range.
5. We greatly appreciate the clear emphasis placed on climate change impacts and adaptation in the EA. In particular, we support the acknowledgement of the potential misalignment between current/future climatic conditions and tree species distributions, and we feel that management actions should directly account for and adapt to this misalignment, where appropriate. Furthermore, we emphasize the importance of balancing climate adaptation and restoration to historical forest conditions, as historical forest conditions in some circumstances are likely not well aligned with the goal of ecosystem resilience under current and future climate conditions. Actions such as strategic tree planting and preserving refugia (microclimates on the landscape that may support greater productivity despite increasing temperatures and altered precipitation) are excellent climate adaptation actions that support ecosystem resilience that are highlighted in the EA.
6. We recommend that the US Forest Service (or a third party entity) conduct robust environmental monitoring, across all systems, to assess treatment impacts on soil moisture, suspended sediment in any adjacent water bodies, invasive species abundance, and native understory species population health. We recommend pairing monitoring/data collection with an adaptive management process that defines thresholds (and related goals) and potential management actions if thresholds are not met/exceeded. In this way, data collection is critical to understanding whether project goals are met and when course correction may be needed. Further, these data could yield important information for future management actions for all

local managers. We also recommend that the US Forest Service (or a third party entity) conduct public education regarding legal use of roads/trails and campfires.
7. We also think this NEPA process could be an opportunity to support effective defensible space and home hardening. To this end, we are wondering if the US Forest Service, through this NEPA process, could consider ways to streamline the process for private landowners, watershed groups, conservation districts, and fire/water districts to manage fuels within 300 feet of homes and/or 1,000 feet of communities. There is currently a permitting system in place, but as we understand it, the system is difficult for the US Forest Service to maintain, and is largely

inaccessible to landowners. We feel that it would be mutually beneficial for all involved to establish a system in which professional managers (e.g., watershed groups, conservation districts, fire/water districts) are enabled to act as "resource specialists" and may oversee vegetation treatments on US Forest Service lands within the 300 feet defensible space zone. In our opinion, this would help to achieve the project goals and increase capacity for management to occur on US Forest Service lands. We think this would be an appropriate program at any elevation/in any forest type. Furthermore, we believe that it is important to recognize that home hardening, in addition to defensible space and forest restoration work, is an essential part of creating fire-adapted communities.

8. During the project planning process we would like to see:

* Opportunities for feedback from area scientists and managers (e.g., from the St. Vrain Forest Health Partnership Science Team);
* Emphasis placed on developing site-specific management actions that reflect the complexity and variability of Front Range forests;
* A clear plan for monitoring and adaptive management, including quantitative thresholds and potential actions if thresholds are not met/exceeded; and
* Opportunities for public engagement prior to project implementation.

9. In preparation for fire, we would like to see:

* Collection of local seed to aid future post-fire regeneration;
* Identification of potential climate refugia that can be utilized for strategic planting and restoration; and
* Future restoration of sediment catchment zones in rivers and streams where appropriate.

10. Additionally, we hope to see the ability for partnering organizations conducting forest management work to utilize temporary (e.g., previously de-commissioned) US Forest Service roads as needed to access other private or public properties.

We thank the US Forest Service for the abundance of work put into this EA and look forward to continuing our strong partnership and collaboration on science-based forest restoration projects in the St. Vrain Watershed in the years to come.