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Lander, WY
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Shoshone National Forest
Wind River Ranger District
Attn: Tanner Sculer

RE: Green Union Project Comments

Thank you for the opportunity to offer scoping comments on the Green Union Project proposed for action under the Infrastructure Investment and Jobs Act (IIJA) of 2022. As an overall comment; I had a difficult time formulating comments on this proposal. This was primarily due to the lack of specific information provided and very small-scale project map with few delineated features that allowed an accurate determination of project locations.

The Green Union Project is being formulated because the Forest Service has identified forest disease and insect conditions within the Dunoir Fireshed area as having “created significant fuel loading and high fire risk to the community of Dubois.” Subsequently, the first proposed action in the Green Union Project is: “Reduce the accumulation of hazardous fuels and decrease the potential for crown fire within the wildland urban interface.”

My general impression is that the Green Union Project does little to directly protect the community of Dubois and also does little to decrease the potential for crown fire within the wildland urban interface. My reasoning is presented below:

Wyoming Wildfire Risk Assessment Portal (WyWRAP).

This online assessment portal provided by the State of Wyoming (<https://wywrap.wyo.gov>) delineates roughly a 1-mile diameter circle surrounding the Town of Dubois as having a highest wildfire threat. This high threat area is entirely off the Shoshone National Forest.

The nearest highest wildfire threat area on the national forest is in the Bald Mountain Area, approximately 4.75 air miles from Dubois. The “Fire Intensity” and “Suppression Difficulty” ratings for almost all of the lands within 2.5 miles of Dubois are identified as moderate and low, respectively. When the “Wildland Urban Interface” layer is pulled up, it indicates the wildfire risk is primarily restricted to the bottomland deciduous-tree lands along the Wind River corridor. This suggests the primary wildfire threat to the Town of Dubois comes not from the National Forest, but rather from the treed riparian areas on private lands. Moderate fire intensity, low suppression difficulty, and topography all suggest that normal fire suppression actions can readily prevent any wildfire on the national forest from reaching the Town of Dubois.

In addition, many of the proposed treatment areas within this project are from 10 to 20 miles from the Town of Dubois. Most of the other Wildland Urban Interface Risk areas identified on WyWRAP are found on private lands along the Wind River corridor. Again, many of these are miles away from proposed project areas. And, much of the land between the interface and the project areas are separated by the 2016 Lava Mountain Fire footprint. Fuel reduction activities in many of the proposed project areas are a sufficient distance away, and if implemented likely will not decrease the potential for crown fire in WyWRAP-delineated WUI areas.

The two proposed project areas that have the potential to meet the project goals are the narrow strip on the north side of Warm Spring Mountain and the north side of Elk Ridge. Both of these areas have private buildings within close proximity. I realize the Infrastructure Investment and Jobs Act provides relatively available funding to address emergency actions. However, with the exception of Warm Springs Mountain and Elk Ridge, the money and manpower necessary to implement treatments in other project areas within the Green Union Project would be better, and more appropriately spent in other firesheds.

Proposed Rulemaking on Climate Resilient Forests and Grasslands.

On April 21, 2023, the Forest Service published Advanced Notice of Proposed Rulemaking on Climate Resilient Forests and Grasslands. An update on the comment review of that advanced notice was held via Zoom on October 31, 2023 (one day prior to the district's public forum). This presentation was restricted to 1,000 viewers nationwide and many of us could not participate. The Forest Service recognized this situation and reported that a recording of this presentation would be placed on the Climate Change Policy and Initiatives website. As of this date, that has not occurred. Again, it appears that many of the proposed projects within the Green Union Project are truly not emergency in nature, and the district should forgo actions in those areas until this proposed rulemaking on climate resilient forests is finalized.

Additionally, many of the treatment descriptions given in the document (Shelterwood, Improvement Cut, Precommercial Thinning, and Stand Improvement) are silvicultural in nature and comprise a large percentage of the total project acreage. Those treatments were developed to maximize wood fiber production with little regard to the myriad of ecological interactions comprising holistic forest ecology. The project introduction contends that the Green Union Project is designed to mitigate forest insect and disease conditions that have impacted the forest over the last 20 years. Unfortunately, the silvicultural practices proposed are the same ones implemented in the past that have subsequently led to many of the current conditions seen in the forest. We cannot expect different results by implementing the same actions that put us where we are today. This is another reason to hold off on most of the Green Union Project until the Climate Resilient Forests rulemaking is finalized.

I do feel that wildfire threats to the Town of Dubois are real. However, those threats do not come from the Shoshone National Forest. The State of Wyoming, Fremont County, and private landowners are the entities that need to secure funding, and institute land use planning and zoning efforts to address the wildfire threat. Even though funding appears readily available through the IIJA, most of the actions proposed in the Green Union Project will not accomplish the overall stated goals and the expenditure of implementation would be an inefficient use of public funds.

Other Scoping Elements.

If the propose project is inadvisably pushed through in its entirety as an emergency action, I have a number of concerns that I feel need to be addressed and subsequently should elevate this action to Environmental Impact Statement status.

1. Old-Growth forests. Have mature and old-growth forests been inventoried and considered within the proposed Green Union Project area?

On April 22, 2022, President Biden issued Executive Order 14072, Strengthening the Nation's Forests, Communities, and Local Economies. Section 1 of that order contains language on conserving mature and old-growth forests. It appears this proposed emergency action would bypass that commitment. Specifically, Section 1 of the order states:

The Infrastructure Investment and Jobs Act (IIJA) I signed into law provides generational investments in ecosystem restoration and wildfire risk reduction. As we use this funding, we will seek opportunities, consistent with the IIJA, to conserve our mature and old-growth forests on Federal lands and restore the health and vibrancy of our Nation's forests by reducing the threat of catastrophic wildfires through ecological treatments that create resilient forest conditions using active, science-based forest management and prescribed fires...

Section 2 (b) of the President's Executive Order states that the Secretary of Agriculture "shall, within 1 year of the date of this order, define, identify, and complete an inventory of old-growth and mature forests on Federal lands, accounting for regional and ecological variations, as appropriate, and shall make such inventory publicly available." That requirement was fulfilled in April 2023 with the publication of the document *Mature and Old-Growth Forests: Definition, Identification, and Initial Inventory on Lands Managed by the Forest Service and Bureau of Land Management*. My experience in the area suggests a number of the proposed Green Union Project areas appear to be within mature and old-growth forests. A review of the above definition and identification document has given me a number of concerns with respect to whitebark pine (*Pinus albicaulis*) mature and old-growth forests.

Table 8 (Page 34) of the 2023 document gives the forest types with old-growth in USFS Region 2. There is a "White pine" forest type, but neither a Whitebark nor Limber pine category. As there are no Western White pine (*P. monticola*) stands within Region 2 to my knowledge, is this forest type meant to be Whitebark pine? The text supporting this table states that the current definitions for old growth in the region are based on Mehl (1992). However, a review of that cited 1992 source (Table 1, Page 108) also does not provide attributes for any Whitebark pine forest cover type. The closest set of old-growth attributes in the 2023 document is for the Whitebark pine old-growth forest type in the Northern Region, Eastern Montana Zone (Beartooth Mountains?); with data presented in Table 7 (Page 33) of the 2023 document. However, the attributes for given for this Region 1, Whitebark pine forest type still do not match the attributes presented for the Region 2 White pine forest type. All this leads me to believe more work is needed on characterizing Whitebark and Limber pine mature and old-growth forest types in Region 2. Until such characterization is done, it will be impossible to accurately map and assess mature and old-growth forests for these two species.

2. Inventoried Roadless Areas. The small-scale project map makes it difficult to assess, but I am pretty certain the proposed Green Union Project area encompasses a good portion of the Sheridan Pass Inventoried Roadless Area and potentially also a part of the Bench Mark Inventoried Roadless Area. There is no way in determining what treatments are planned for the roadless area(s), but a number of them, such a precommercial thinning, would be for timber harvest actions that are clearly prohibited by the 2001 Roadless Area Rule. Thinning could be

conducted within the inventoried roadless area if it followed the guidance of 36 CFR 294.13 b (1)(ii) which states “generally small diameter timber” can be harvested to “maintain or restore the characteristics of ecosystem composition and structure.”

Additionally, I am curious about the possible need for treatments in the Sheridan Pass Roadless Area. WyWRAP suggests that most of the proposed project in the area of Sheridan Pass is identified as either “Low” or “Medium” for Wildfire Threat. An environmental assessment would allow citizens to know specifically what treatments are planned for inventoried roadless and other areas.

3. **Natural Resiliency.** Humans tend to look at stand replacing natural disturbances and their succession in the scope of the human-life timeframes. This impatience to the speed of natural recovery can lead to the misconception that the system needs a management jumpstart. And frankly, the multitude of natural interactions within ecosystem succession are so complex that ineffective or even incorrect management practices can be easily be adopted. There are a number of locations within the immediate area that can be studied to see how the forests of the upper Wind River have naturally responded to major stand altering events such as fire and insect outbreaks. For example, last summer I hiked part of the Pinnacles Trail. Some of this trail goes through an area that had extensive whitebark pine mortality because of beetles and blister rust. Although most of the mature pines were dead, there was an incredible amount of whitebark pine regeneration in the open understory. To have immediately gone into this area and removed the dead overstory likely would not have resulted in as dramatic rebound as I observed due to soil drying and compaction, loss of soil organic matter, and changes in snowpack retention. The same can likely be said about various areas that have experienced stand replacing crown fires over the last several decades. We may say they are “destroyed” in the short term, but maybe we just aren’t thinking in forest-life timeframes.
4. **Threatened and Special Interest Species.** There are a number of threatened species found within the proposed Green Union Project Area. The potential impacts to these species should be addressed through the EA process. These species include: Grizzly bears (Forest Plan Map 11 shows this area as “Grizzly Bear Secure Area;” Canada lynx (Forest Plan Map 7 shows this area as lynx habitat and within Lynx Critical Habitat, Unit 5); Whitebark pine (there are simply a lot of questions concerning the best management of this threatened tree species); and Yellowstone River cutthroat trout (Forest Plan Map 18 shows Sheridan Creek as being current range for this fish of interest).

Finally, the proposed project area is a major linkage corridor that joins the core of the Greater Yellowstone Ecosystem to the Wind River Range. This corridor is critical for the travel and genetic interexchange of species such as grizzly bears, wolves, Canada lynx, wolverine, elk, and bighorn sheep. An EA would evaluate the potential impacts of this project on such ecosystem linkage.

5. Carbon Sequestration and Emissions. The Secretary of Agriculture recognized the Forest Service's need to recognize carbon stewardship in Memorandum 1077-004, dated June 23, 2022. Research comparing old-growth and young second-growth carbon stock in sub-boreal coniferous forests has shown that harvesting old-growth forests reduced total carbon stocks by 54% - 41% (Fredeen et. al, 2005). The ongoing rulemaking process for Climate Resiliency and Carbon Stewardship on national forest lands will hopefully provide guidance on how to assess the carbon stewardship of projects like Green Union. Again, this is what I feel is a good reason to delay all but the Warm Springs Mountain and Elk Ridge portions of this proposal until this final rulemaking is completed.

Again, thank you for the opportunity to comment on this scoping proposal.

References Cited

Fredeen, A.L., C.H. Bois, D.T. Janzen, and P.T. Sanborn. 2005. Comparison of coniferous forest carbon stocks between old-growth and young second-growth forest on two soil types in central British Columbia, Canada. *Can. J. For. Res.* Vol. 35: 1411-1421.

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USDA, Forest Service. 2023. *Mature and Old-Growth Forests: Definition, Identification, and Initial Inventory on Lands Managed by the Forest Service and Bureau of Land Management*. Fulfillment of Executive Order 14072, Section 2(b). Forest Service Document FS-1215a. April 2023. 63pp.