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Comments: On behalf of the American Forest Resource Council (AFRC) and its members, thank you for the opportunity to provide comments on the draft environmental assessment (DEA) on the Railroad Saddle project (RRS). RRS is located on the New Meadows District of the Payette National Forest. The planning area encompasses approximately 25,000 acres and proposes a variety of resource treatments including 4,200 acres of harvest treatments that will produce a significant volume of merchantable timber. This area is very important and popular to the residents of the area, and to AFRC members.

AFRC is a regional trade association whose purpose is to advocate for sustained yield timber harvests on public timberlands throughout the West to enhance forest health and resistance to fire, insects, and disease. We do this by promoting active management to attain productive public forests, protect adjoining private forests, and assure community stability. We work to improve federal and state laws, regulations, policies and decisions regarding access to and management of public forest lands and protection of all forest lands. AFRC represents over 50 forest product businesses and forest landowners throughout the West. Many of our members have their operations in communities adjacent to the Payette National Forest. The management of these lands ultimately dictates, not only the viability of their businesses, but also the economic health of the communities themselves. Rural communities, such as the ones affected by this project, are particularly sensitive to the forest product sector because more than 50% of all manufacturing jobs are in wood manufacturing.

Purpose and Need - Move Forest Stands Within the Project Area Toward Vegetative Desired Conditions

AFRC strongly encourages treating as many acres that are in need of treatment as possible, and strongly encourages treatment of the majority of mature timber stands, either through free thinning across all age classes or through regeneration harvests within the RRS planning area. Our members depend on a predictable and economical supply of timber products off Forest Service land to run their businesses and to provide useful wood products to the American public. The treatments on the RRS project will likely provide short-term products for the local industry, and we want to ensure this provision is an important consideration for the decision-maker as the project progresses. The consideration of active management on every acre of appropriate land, regardless of its land allocation, is important to our membership, because each year's timber sale program is a function of the treatment of aggregate forested stands across the landscape. As we will discuss later in our comments, the importance of our members' ability to harvest and remove these timber products from the timber sales generated off this project is paramount to a principal objective to any project proposed on the National Forest System (NFS), land particularly those lands designated as commodity emphasis, but also on lands with other designations. Supporting local industry and providing useful raw materials to maintain a robust manufacturing sector should be a principal objective to any project proposed on NFS lands. AFRC appreciates the recognition in the RRS purpose and need on page 3 of the DEA: Provide forest products to contribute to the economic sustainability of local communities.

Various laws direct and allow the Forest Service to provide a sustainable supply of timber and other forest products from the Nation's forests including the Multiple-Use Sustained Yield Act (MUSYA) of 1960 and the National Forest Management Act (NFMA) of 1976. The MUSYA authorizes and directs the Secretary of Agriculture to develop and administer the renewable resources of timber, range water, recreation, and wildlife on the national forests for multiple use and sustained yield of the products and services. NFMA is the primary statute governing the administration of national forests. This Act requires the Secretary of Agriculture to assess forest lands, develop a management program based on multiple-use and sustained-yield principles and to implement a resource management plan for each unit of the NFS. We appreciate the Payette proposing regeneration harvest treatments as a component of this project. A management paradigm based exclusively on intermediate thinning

treatments is ultimately unsustainable without a regeneration component. We urge you to acknowledge and emphasize this notion in the final analysis.

A document on "Connecting Climate Change and Paleoclimate in the Pacific Northwest," by Christal Johnson of the USFS Blue Mountains Ecology Program, discusses the implications of reference conditions in forest restoration and management that are often based on the pre-fire suppression era from approximately 1800 to 1910. This time period took place during the end of the Little Ice Age and was substantially cooler than the present climate. This significant temperature difference implies that some of the vegetation remaining on the landscape from that era, which is the older mature trees, may be adapted to cooler and wetter climate conditions. Among the strategies proposed by Ms. Johnson on page 4 of the paper are:

* Use thinning, prescribed fire, and managed wildfire to reduce density and promote conditions that are resistant to drought and fire.
* Facilitate species shifts towards more suitable environments. This may mean increasing habitat connectivity, or even facilitating migrations for species that are losing habitat more quickly than they can relocate.
* Consider future climate in all planting decisions. This may mean allowing conversion to non-forested states at hot and dry sites or altering planting densities and species compositions to be suitable for hotter and dryer conditions.

The above strategies imply that removal of more of the mature and large trees may be necessary to achieve the desired conditions outlined in the RRS Purpose and Need. The survival of the most desirable trees on the landscape my require modified silvicultural prescriptions. AFRC requests that the District consider the strategies and approach as described above, especially on sites that are drier or where tree health and vigor is already poor.

Operations

The timber products provided by the Forest Service are crucial to the health of our membership. Without the raw material sold by the Forest Service these mills would be unable to produce the among of wood products that the citizens of this country demand. Without this material our members would also be unable to run their mills at capacities that keep their employees working, which is crucial to the health of the communities that they operate in. These benefits can only be realized if the Forest Service sells their timber products through sales that are economically viable. This viability is tied to both the volume and type of timber products sold and the manner in which these products are permitted to be delivered from the forest to the mills. There are many ways to design a timber sale that allows a purchaser the ability to delivery logs to their mill in an efficient manner while also adhering to the necessary practices that are designed to protect the environmental resources present on Forest Service forestland.

The primary issues affecting the ability of our members to feasible delivery logs to their mills are firm operating restrictions. As stated above, we understand that the Forest Service must take necessary precautions to protect their resources; however, we believe that in many cases there are conditions that exist on the ground that are not in step with many of the restrictions described in Forest Service EA's and contracts (i.e. dry conditions during wet season, wet conditions during dry season). We would like the Forest Service to shift their methods for protecting resources from that of firm prescriptive restrictions to one that focuses on descriptive end-results; in other words, describe what you would like the end result to be rather than prescribing how to get there. There are a variety of operators that work in the New Meadows market area with a variety of skills and equipment. Developing an EA and contract that firmly describes how any given unit shall be logged may inherently limit the abilities of certain operators. For example, restricting certain types of ground-based equipment rather than describing what condition the soils should be at the end of the contract period unnecessarily limits the ability of certain operators to complete a sale in an appropriate manner with the proper and cautious use of their equipment. To address this issue, we would like to see flexibility in the RRS Final EA and future contracts to allow a variety of equipment to

the sale areas. We feel that there are several ways to properly harvest any piece of ground, and certain restrictive language can limit some potential operators. Some of the RRS proposal area has steeper slopes (greater than 35 percent), there are opportunities to use certain ground equipment such as fellerbunchers and processors in the units. The loss of cable logging infrastructure in the west central Idaho area makes the need to utilize other equipment essential. Allowing the use of processors and fellerbunchers throughout these units can greatly increase its economic viability, and in some cases decrease a disturbance by decreasing the amount of cable corridors, reduce damage to the residual stand and provide a more even distribution of woody debris following harvest.

The effectiveness of harvesting and yarding low volume per acre on steep slopes is a significant obstacle to implementation. Tethered-assist logging is becoming a more economical and available method of yarding on steep slopes throughout the region. The weight displacement provided by tethering allows tracked equipment to operate on steep ground with limited soil displacement or compaction. Standard psi levels for that tracked equipment are transferred to the tethering uphill. Other Forests in the Region have permitted this equipment to be used on Forest Service thinning stands on slopes up to 70%. The effectiveness of harvesting and yarding low volume per acre on steep slopes is a significant obstacle to implementation. The weight displacement provided by tethering allows tracked equipment to operate on steep ground with limited soil displacement or compaction. Standard psi levels for that tracked equipment are transferred to the tethering uphill. Other Forests in Region 1, 4 and 6 have permitted this equipment to be used on Forest Service thinning stands on slopes up to 70%.

Green, P.Q., Chung, W., Leshchinsky, B., Belart, F., Sessions, J., Fitzgerald, S.A., Wimer, J.A., Cushing, T., Garland, J.J. (2019). Insight into the productivity, cost and soil impacts of cable-assisted harvester-forwarder thinning in western Oregon. For. Sci. 66(1):82-96

Key Point of the Green paper include:

The use of cable assistance can reduce track coverage and reduce shear displacement, and thus likely lessen potential soil impact caused by forestry machines.

Garland, J., F. Belart, R. Crawford, W. Chung, T. Cushing, S. Fitzgerald, P. Green, et al 2019. Safety in steep slope logging operations. J. Agromedicine 24(2):138-145

Key Point of the Garland paper include:

Use of new tethered-assist technology reduces exposure to hazards and reduces workers exposed to the most dangerous work in logging - felling and working on cable operations on steep slopes.

AFRC appreciates the recognition in RRS that various types of tethered-assist equipment may be viable on steeper slopes. AFRC suggests eliminating entirely the reference to "35%" slope in the discussion on page 9 since the Payette Land and Resource Management Plan (LRMP) does not use that figure. AFRC advocates allowing as much flexibility as possible within the contract while still meeting the management goals and guidelines contained in the NEPA document. This flexibility allows the purchaser to use the most economically viable systems thus keeping the ability to pay higher stumpage rates. Logging contractors must average ten (10) months of work per year in order to be profitable, and cable logging infrastructure is rapidly disappearing in western Idaho due to safety and workforce issues. Developing the RRS proposal with that in mind is critical. AFRC advocates allowing as much flexibility as possible within the contract while still meeting the management goals and guidelines contained in the National Environmental Policy Act (NEPA) document. The flexibility allows the purchaser to use the most economically viable systems, and thus increases the ability of the purchaser to pay higher stumpage rates. Placing restrictions on the specific machinery to be used severely impacts the economic viability of the timber sale while not improving the end result. Locking in the specific types of logging systems and equipment in the NEPA document removes flexibility during the implementation stage. Analyzing areas for

"tractor/tethered assist" and working with industry on the ground during implementation will provide for best meeting restoration objectives that are economically viable.

Green, P.Q., Chung, W., Leshchinsky, B., Belart, F., Sessions, J., Fitzgerald, S.A., Wimer, J.A., Cushing, T., Garland, J.J. (2019). Insight into the productivity, cost and soil impacts of cable-assisted harvester-forwarder thinning in western Oregon. For. Sci. 66(1): 82-96.

Key Points of the Green paper include:

The use of cable assistance can reduce track coverage and reduce shear displacement, and thus likely lessen potential soil impact caused by forestry machines.

Appendix 2 in the RRS scoping document listed more than 200 units with commercial volume for removal. Logging systems were identified were tractor, jammer, off road jammer, cable, skyline and yoader. A description was provided for each type of system except for yoader. A significant number of units are 5 acres or less, including a one-acre cable unit and a unit that is shown as 0.1 acre. Numerous small acreage units require extensive mobilization, which is very costly. The RRS DEA does not provide a similar list of units with the proposed logging systems identified. Is the initial list from the scoping notice still accurate? AFRC reiterates our concerns included in our scoping comments: "The RRS project has more than 200 units with commercial volume for removal. Logging systems identified are: tractor, jammer, off road jammer, cable, skyline and yoader. A description is provided for each type of system except for yoader. A significant number of units are 5 acres or less, including a one-acre cable unit and a unit that is shown as 0.1 acre. Numerous small acreage units require extensive mobilization, which is very costly. Please closely review unit acreages and locations, and look for opportunities to combine or expand units."

The primary issues affecting the ability of our members to feasible deliver logs to their mills are rigid operating restrictions and poorly designed contract pricing methods. We understand the Forest Service must take necessary precautions to protect natural resources; however, we believe in many cases there are conditions existing on the ground that are not in step with many of the restrictions described in Forest Service NEPA documents or contracts (i.e., dry conditions during wet season, wet conditions during dry season, etc.). We would like the Forest Service to shift methods for protecting resources from that of firm prescriptive restrictions to one focused on descriptive end-results; in other words, describe what you would like the end result to be, rather than prescribing how to get there. This includes seasonal operating restrictions around wildlife, such as goshawks and elk calving areas.

Provisions that would allow for removal of biomass and nonmerchantable material that is subject to agreement may be necessary on RRS. Weight scale rather than tree measurement should be considered on merchantable material given the discrepancies between Forest Service cruising methods and industry merchantability standards. Flexibility on the product removal side will be key to effective implementation and meeting objectives on the RRS project.

Purpose and Need - Move subwatersheds within the project area toward desired conditions for soil, water, riparian, and aquatic resources riparian habitat conservation area management.

AFRC fully supports treatments in riparian habitat conservation areas (RHCAs) and encourages the Forest to maximize treatment of those stands in need. RHCAs are the most productive areas on the landscape and change rapidly over time. The next entry may be too late given the extreme fire seasons that this area has been experiencing over the last decade. We would like the District to consider the document cited below, which is specific to riparian management in dry forest landscapes. We believe this paper emphasizes the need to actively manage these riparian areas to meet the stated objectives described in the scoping notice for this project.

Messier, Michael S., Shatford, Jeff P.A., and Hibbs, David E. 2011. Fire Exclusion effects on riparian forest dynamics in southwestern Oregon. Forest Ecology and Management. 264 (2012) 60-71.

Key points of the Messier paper include:

* Fire exclusion has altered the structure, composition, and successional trajectory of riparian forests in fire-prone landscapes.
* Fire exclusion has been associated with increase in tree density and recruitment of shade-tolerate species that may replace large diameter, more decay-resistant Douglas-fir trees.
* A hands-off management regime for these riparian forests will have ecologically undesirable consequences.

Road Decommissioning

An intact road system is critical to the management of Forest Service land, particularly for the provision of timber products. Without an adequate road system, the Forest Service will be unable to offer and sell timber products to the local industry in an economical manner. The road decommissioning proposed in the RRS scoping notice likely represents a permanent removal of these roads, and likely the deferral of management of those forest stands to which they provide access. The land base covered in the RRS project area are to be managed for a variety of forest management objectives. Removal of adequate future access to these lands compromises the agency's ability to achieve these objectives and is very concerning to us. We would like the District to carefully consider the following three factors when making a decision to decommission any road in the project area.

1. Determination of any potential resource risk related to a road segment.
2. Determination of the access value provided by a road segment
3. Determination of whether the resource risk outweighs the access value (for timber management and other resource needs).

We believe that only those road segments where resource risk outweighs access value should be considered for decommissioning.

Carbon/Climate

Please consider the points below from a technical report by the Climate Change Vulnerability Assessment and Adaptation Project (SWOAP) in Southwest Oregon.

* Wood harvested from the forest, especially timber used for durable structures, can be reservoirs of long-term carbon storage (Bergman et al. 2014).
* Forests and their products embody a closed-loop system in which emissions associated with harvests and product use are eventually recovered as forests regrow.
* Although products may be retired in solid waste disposal sites, they decompose quite slowly, causing carbon to continue to be stored for many decades.
* Products derived from the harvest of timber from national forests reduce carbon emissions by substituting for more energy-intensive materials including concrete, steel and plastics.

Please see the graph below from the IPCC (2007) that captures the ability of forests to "stack" carbon sequestration and storage through continual harvests. Please consider adopting this graph into the Final RRS project analysis.

Graph in attachment: Figure 8.7 - Carbon balance from a hypothetical forest management project in which the forest is harvested roughly every 40 years from land that started with low forest carbon stocks

We believe that this graph encapsulates the forest management paradigm that would be most effective maximizing carbon sequestration on a per-acre basis by "stacking" storage in wood products and regrowth of newly planted trees.

We would like to encourage the New Meadows District to consider several documents related to carbon sequestration related to forest management.

McCauley, Lisa A., Robles, Marcos D., Wooley, Travis, Marshall, Robert M., Kretchun, Alec, Gori, David F. 2019. Large-scale forest restoration stabilizes carbon under climate change in Southwest United States. Ecological Applications, 0(0), 2019, e01979.

Key points of the McCauley paper include:

* Modeline scenarios showed early decreases in ecosystem carbon due to initial thinning/prescribed fire treatments, but total ecosystem carbon increased by 9-18% when compared to no harvest by the end of the simulation.
* This modeled scenario of increased carbon storage equated to the removal of carbon emissions from 55,000 to 110,000 passenger vehicles per year until the end of the century.
* Results demonstrated that large-scale forest restoration can increase the potential for carbon storage and stability and those benefits could increase as the pace of restoration accelerates.

We believe that this study supports the notion that timber harvest and fuels reduction practices collectively increase the overall carbon sequestration capability of any given acre of forest land and, in the long term, generate net benefits toward climate change mitigation.

Thank you for the opportunity to provide DEA comments on the RRS project. We look forward to following the implementation of this project as it moves forward. Please feel free to contact me if I can assist you with determining the economic feasibility of silviculture treatments and logging system requirements.

Reference/Not Included (comment 4-1): Connecting Climate Change and Paleoclimate in the Pacific Northwest. Christal Johnson, USFS, Blue Mountains Ecology Program

Reference/Not Included (comment 4-11 and comment 4-12): Insight into the productivity, cost and soil impacts of cable-assisted harvested-forwarder thinning in Western Oregon. P.Q. Green, Et al. Forest Science 66(1):82-96

Reference/Not Included (comment 4-11): Safety in Steep Slope Logging Operations. J. Green, et al. Journal of Agromedicine. 24(2): 138-145

Reference/Not Included (comment 4-13): Fire exclusion effects on riparian forest dynamics in Southwestern Oregon. Michael S. Messier, et al. Forest Ecology and Management. 264 (2012) 60-71.

Reference/Not Included (comment 4-15): Large-scale forest restoration stabilizes carbon under climate change in Southwest United States. Lisa A. McCauley, et al. Ecological Applications, 0(0), 2019, e1979

Reference/Not Included (comment 4-15): Technical Report: Climate Change Vulnerability Assessment and Adaptation Project (SWOAP) in Southwest Oregon.

Reference/Graph Included in comment letter (comment 4-15): Graph: IPCC (2007) Carbon Balance