USDA United States Department of Agriculture

Rocky Restoration Project- Appendix C

Response to Comments

Forest Service Mt Hood National Forest Barlow Ranger District December 2018

30-Day Comment Period Summary

The proposed action along with a preliminary assessment (which, in addition to proposed action, included the need for the proposal and the environmental consequences) was made available for public comment. Letters and e-mails were received during the 30-day comment period, which ended on October 26, 2018. The responsible official has considered comments received and has developed the Rocky Restoration Environmental Assessment (EA) in response to those comments.

This appendix responds to the specific comments received. Specific written comments are comments that are within the scope of the proposed action, have a direct relationship to the proposed action, and include supporting reasons for the responsible official to consider (36 CFR 219.2). The emails and letters are in the analysis file; the following is a summary.

Comment Number	Commenter Name & Organization	Comments on the EA (30-day comment period)	Response to the Comment
AFRC1	**American Forest Resource Council (AFRC)**	AFRC is disappointed that the forest opted to not treat any stands over 80 years of age especially since 7,196 acres of the total 14,278 project acres (or 50 percent) are designated as matrix. The forest opted to only treat stands younger than 80 years so as not to have to do the two years of surveys required to treat older stands. Again, this is a big opportunity lost because the initial scoping for the project came out in October, 2015 and the Forest would have had ample time to complete the surveys. AFRC is generally opposed to the Forest Service using a single stand attribute such as age to determine the suitability of a stand's need for treatment. We believe this practice over-simplifies the forest that you are tasked with managing. Stand conditions, independent of random attributes such as age, should be the primary element that drives silvicultural prescriptions. We strongly urge the Forest Service to avoid using stand age as a surrogate for stand conditions when assessing the need for treatment on any forest stand.	Stand age is just one component of data collected within the project area. Common stand exam protocol is used to collect data for individual stands to determine stand conditions or existing conditions for the vegetative resource. Data collected ranges from but is not limited to tree height, species, diameters, age, and density. Stand age is used to meet survey and manage protocol for when surveys are required, not as determinant of stand condition.
AFRC2	**American Forest Resource Council (AFRC)**	"Treating the matrix lands within the project area would have made the project more economically feasible and would have allowed for a larger product mix and most likely higher stumpage values for the timber being sold." "These benefits can only be realized if the Forest Service sells their timber products through sales	Refer to the purpose and need (EA, p. 6-7). The overall purpose for the Rocky Restoration Project is to conduct restoration activities within the planning area to improve the health and vigor of forested stands,

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		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." Based on the description of the stands to be treated "...we do not believe this small volume will be enough to make the sale economically feasible in today's markets."	and improve conditions for wildlife and aquatic resources, while reducing the risk of human-caused fires spreading from public access roads on to nonfederal lands and to provide a location for fire suppression personnel to actively engage a fire safely. All proposed activities were designated to meet the above stated purpose. Partners and outside grants will be utilized to implement proposed action elements that cannot be economically removed through timber or stewardship sales.
AFRC3	**American Forest Resource Council (AFRC)**	AFRC proposes two options for implementation of the units with marginal economic viability in this proposed project and the work the forest is contemplating doing to reduce the risk of wildfire in the Wasco Community Wildfire Protection Plan and the Pine Hollow wildland-urban interface. First, for units determined to be uneconomical, this project could be implemented through an IRSC whereby the forest puts additional money into the project to pay for needed fuels reduction and small diameter product removal.	Commenter's suggestions for how the project could be implemented are noted. The EA document was prepared to disclose the results of the environmental analysis that was conducted to determine if the proposed activities would result in significant impacts. The type of contract used for implementation of the selected alternative (or alternative components) is independent of the environmental analysis.
AFRC4	**American Forest Resource Council (AFRC)**	Second, the forest could implement those units determined to be economically feasible, using a timber sale contract. The completion of non-commercial fuels reduction work could be assessed following the implementation of this contract.	Commenter's suggestions for how the project could be implemented are noted. The EA document was prepared to disclose the results of the environmental analysis that was conducted to determine if the proposed activities would result in significant impacts. The type of contract used for implementation of the selected alternative (or alternative components) is independent of the environmental analysis.

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AFRC5	**American Forest Resource Council (AFRC)**	We encourage the forest to design riparian thinning treatments on this project in ways that foster positive changes to large wood supplies that would result in measurable changes. One way to accomplish this is to reduce the no-cut buffers. It has also been documented that vegetated buffers that are greater than 33 feet in width have been shown to be effective at trapping and storing sediment (Rashin et al. 2006). Partial cutting down to one or two conifers from intermittent and perennial stream channels would accelerate the recruitment of LWD with minimal impacts to sedimentation and stream temperature. We would like the Forest Service to consider these trade-offs closely in the planning for this project to improve riparian conditions on the maximum amount of these reserves	The riparian reserve network for Rocky was custom designed for the proposed action. Its design is intended to provide a balance of strong protection for aquatic species and their habitats, be consistent with the Aquatic Conservation Strategy of the NWFP, safeguard water quality, enhance wildlife habitat, and promote resiliency and development of riparian forest structure. As explained in the EA, and defined in the project design criteria, no-cut buffers range from 30 to 130 feet per side depending upon stream type, valley form, stand conditions, and fish presence. The proposed action does include thinning treatments in riparian forest, those treatments however are intended to be balanced with attaining other resource objectives and meeting regulatory compliance.
AFRC6	**American Forest Resource Council (AFRC)**	We would also like the forest to consider including some of the following pieces of scientific research into their analysis. Controversy surrounding any type of thinning in riparian reserves has surfaced, and we think the following information would be useful in justifying the kinds of beneficial treatments the forest implements. Stream temperature Janisch, Jack E, Wondzell, Steven M., Ehinger, William J. 2012. Headwater stream temperature: Interpreting response after logging, with and without riparian buffers, Washington, USA. Forest Ecology and Management, 270, 302-313. Key points of the Janisch paper include: • The amount of canopy cover	Conclusions derived by the research of Janisch et al have provided useful insights to the effects of logging along small headwater streams in western Oregon, and could be applicable rationale for conditions and circumstances that are similar in the western Cascades of the Mt. Hood NF. For the Rocky project on the east side of the Cascades however, other factors were at play while considering the design of the riparian reserve network. In particular, the presence of fish species, and observed elevated summer water

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		retained in the riparian buffer was not a strong explanatory variable to stream temperature. • Very small headwater streams may be fundamentally different than many larger streams because factors other than shade from the overstory tree canopy can have sufficient influence on stream temperature.	temperatures in the perennial streams in the project area, which factored heavily into wider no-treatment buffers on those reaches. But for non-fish bearing streams, narrower no-treatment buffers have been prescribed, so that treatments within some of the riparian reserve network could occur to enhance their development.
AFRC7	**American Forest Resource Council (AFRC)**	Riparian reserve gaps Warren, Dana R., Keeton, William S., Bechtold, Heather A., Rosi-Marshall, Emma J. 2013. Comparing streambed light availability and canopy cover in streams with old-growth versus early-mature riparian forests in western Oregon. Aquatic Sciences 75:547- 558. Key points of the Warren paper include: • Canopy gaps were particularly important in creating variable light within and between reaches. • Reaches with complex old growth riparian forests had frequent canopy gaps which led to greater stream light availability compared to adjacent reaches with simpler second-growth riparian forests.	The treatments that are prescribed to enhance riparian forest on non-fish bearing streams should provide for a little more light exposure to those reaches such as the research by Warren suggests, which may benefit streambed benthos. But we do not include gaps for fuel reduction prescriptions in dry mixed conifer because the amount of tree removal in variable density thinning is light in an effort to meet the desired future condition. Along fish-bearing reaches however, no-treatments are prescribed in riparian reserves in part because of elevated summertime stream temperatures that have been observed in our monitoring data, which factored into the design of the riparian reserve network. Additionally, the riparian forest along the perennial fish-bearing reaches in the project area are not 100 percent shaded, and there are some reaches where direct sunlight can reach the streambed. The lack of streambed light was not believed to be a limiting factor at the sub-watershed scale.

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AFRC8	**American Forest Resource Council (AFRC)**	Thin stands to the widest residual tree spacings and leaving only 40 sq. ft. of basal area. This wider thinning is needed for fuels reduction, for enhanced tree growth and for better timber sale economics.	Refer to proposed action desired range of residual basal area (EA, p. 13). Spacing is prescribed to meet the desired future conditions while also protecting the residual stand from wind damage and maintaining other elements vital to other resources.
AFRC9	**American Forest Resource Council (AFRC)**	6. AFRC suggests the use of Designation by Prescription (DxP) as the means to designate trees for harvest for any appropriate partial harvest areas. We believe that better results can be achieved in a much more efficient and cost effective manner by utilization of basal area thinning as described in a silvicultural prescription.	Commenter's suggestions for how to set up the timber sales are noted. The EA document was prepared to disclose the results of the environmental analysis that was conducted to determine if the proposed activities would result in significant impacts. The methods used for implementation of the selected alternative (or alternative components) are independent of the environmental analysis. A variety of prescriptions and tools to implement the prescriptions (designation by description, designation by prescription, leave tree marking etc.) will be utilized to meet the desired future conditions.
AFRC10	**American Forest Resource Council (AFRC)**	AFRC also suggests selling timber sales on a tonnage recovery basis rather than lump sum, which would not only reduce risk for purchasers, it would increase efficiency and reduce cost for the forest. Lump sum sales take a lot of time to cruise, DXD marking takes a lot of time and uses a lot of paint and we believe the same results could be attained using DXP and selling the sales by the ton. Many forests are already using this option.	Commenter's suggestions for how to sell the timber are noted. The EA document was prepared to disclose the results of the environmental analysis that was conducted to determine if the proposed activities would result in significant impacts. The methods used for implementation of the selected alternative (or alternative components) are independent of the environmental analysis. A variety of methods to remove the product from

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			the sites will be considered.
AFRC11	**American Forest Resource Council (AFRC)**	7. There are three historic home ranges for spotted owls that overlap treatment units in the project area. AFRC would like to point out that over the past several years many Forest Service projects have been scaled back in scoping to a reduced level of acres treated due to perceived effects to the northern spotted owl. We encourage the Mt. Hood to consider a published study conducted by NCASI when assessing treatment areas and their potential affects to owls. Larry L. Irwin, Dennis F. Rock, Suzanne C. Rock, Craig Loehle, Paul Van Deusen. 2015. Forest ecosystem restoration: Initial response of spotted owls to partial harvesting Among other findings, this study concluded that partial-harvest forestry, primarily commercial thinning, has the potential to improve foraging habitats for spotted owls. The treatments being proposed will likely affect northern spotted owl (NSO) habitat to some degree. Often this level of effect is quantified by the amount of forest canopy that remains following thinning treatments. AFRC has general concerns with how the Forest has been measuring these effects to NSO habitat, specifically regarding canopy cover/closure. Please see the attached document titled 'NSO Canopy Condition' as an addendum to these comments for consideration in how the treatments on this project are designed and how this design affects the NSO.	The study provided was reviewed. A high proportion of the radio-tagged owls were California spotted owls. Of the five northern spotted owls that were radio-tagged and had useable data, two were observed in thinned stands less than expected and three were observed in thinned stands more than expected. Because of the small sample size, there is not enough information to determine how this would translate to effects from the proposed action. The purpose and need for the proposed action is to conduct restoration activities to improve the health and vigor of forested stands. The purpose and need were the driving factors for the project design. The analysis method used complies with ESA consultation requirements by analyzing the impacts of the proposed action on listed species and canopy cover guidelines set by the U.S. Fish and Wildlife Service. "The proposed harvest treatments would temporarily impact approximately 393 acres of dispersal habitat. This habitat would be impacted by reducing the canopy cover from approximately 70 percent to 40 percent or greater." "The proposed treatments include a thinning prescription on 326 acres of critical habitat that would improve the growth rate

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			of the stands. Larger trees would eventually be provided in the second-growth stands in a faster timeframe than they would with no thinning. Structural diversity would be improved by initiating a new age class and by creating openings." PA at 69.
AFRC12	**American Forest Resource Council (AFRC)**	8. AFRC suggests the forest consider more conditions based rather than strict seasonal restrictions to allow greater flexibility in the operating seasons. Opportunity for winter operations and hauling would greatly benefit the local markets as well as provide better return to the government without sacrificing the end result.	Condition based project design criteria (PDC) were developed for the Rocky planning area. See Soils PDC in the EA (p. 23).
AFRC13	**American Forest Resource Council (AFRC)**	We have concerns with several project design criteria in particular. First, page 19 of the EA states that "no ground based mechanized equipment would be allowed within 100 feet of streams, seeps, springs or wetlands. This would reduce the chance of sediment delivery to surface water." The very next PDF directs that "no skidding in riparian reserves between October 31 and June 1." We are confused how the Forest Service is reconciling these two PDFs. How could ground based equipment create a "chance of sediment delivery to surface water" if there are already restrictions that prohibit the use of ground-based equipment in the wet season? We would like the Forest Service to either describe how sediment delivery to surface water is a reasonable possibility with the existing timing restrictions in place or consider removing the 100-foot operating restriction.	Each of those project design criteria (PDC) are intended to avoid or minimize effects to two different resources within Riparian Reserves, one being water quality, the other being riparian soils. The seasonal restriction PDC is prescribed to minimize ground impacts to riparian soils, particularly where the aspen treatments are planned.
BARK1	**BARK**	1) Please amend PDC to ensure retention of legacy snags and snag creation. While we recognize that the Forest Service needs to protect logger safety, it has options beyond felling danger snags. OSHA Regulations specifically state that if a danger tree [including lodged trees and snags] is not felled or removed, it shall be marked and no work shall	The project design criteria (PDC) states that "all snags would be retained where safety permits. If snags must be cut for safety reasons they would be left on site." Snags would not be cut if they aren't a hazard. The forest has a

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		be conducted within two tree lengths of the danger tree unless the employer demonstrates that a shorter distance will not create a hazard for an employee. 29 C.F.R. § 1910.266(h)(1)(vi). In short, the Forest Service has the option to buffer danger snags, not cut them. In order to both meet the forest plan standards for snag retention, and to fully incorporate the recommendations of the Wasco Collaborative, please exercise this option and change the Rocky PDC to state ""All legacy snags would be retained by creating adequate safety buffers, as needed."	responsibility to provide for public and employee safety, and has the discretion for choosing the most effective method to do so.
BARK2	**BARK**	The project does not include a specific plan for snag creation, as was requested by the Wasco Collaborative. Unless we missed it, the EA simply says "Where possible, snags should be created to meet forest plan standards." PEA at 13. This is insufficient, as it fails to meet forest plan standards FW-217 & 218 which require proactive snag creation and fails to incorporate the Wasco Collaborative recommendations. In the final EA, please include a specific, proactive plan to create snags throughout the Rocky project area.	The terminology of "where possible" was added because most of the stands do not have trees large enough to meet forest plan standard for snags and for the ones that do, there are a minimal amount of live trees in that size class. The current proposed action would still allow us to create snags when the residual stand provides adequate size trees and where residual density would allow for the creation without impacting necessary canopy cover and seed source for future regeneration and other resource protection needs. FW-217 &218 refer to biological potential which is no longer the best available science. DecAID is now used for snag analysis.
BARK3	**BARK**	2) Please replace "should" with "shall" in several PDC. There are several Project Design Criteria where the less enforceable "should" which should be replaced with the mandatory "shall" in order to ensure both better compliance and protection of the project area. In order to meet the Aquatic Conservation Strategy objectives, the following two Roads PDC should	The intention of the project design criteria (PDC) is to apply them whenever possible and relevant. As the EA is not a decision document it isn't appropriate to use the words will or shall.

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		be upgraded to 'shall': #7 "Culverts should be removed" and #14 "new temporary roads and landings should be located out of Riparian Reserves." In addition, to meet forest plan standards for soil productivity, the following Soils PDC should also be changed to 'shall': #2 "Ground-based harvest systems should not be used on slopes greater than 30 percent", and #5(d) "no rubber tired skidders should be used on skid trails once soils become fully saturated."	
BARK4	**BARK**	3) Please clarify aspen enhancement PDC. The current PDC for the Aspen Enhancement portion of the project are a bit unclear, and Bark requests that they are improved for clarity. This issue arose in the Wasco Collaborative conversation about the proposed project: "There was a concern about the use of heavy machinery in the meadow as part of the aspen enhancement activities. The PDC for the treatment will clarify access for equipment, which will be off of the 4811 road." Collaborative meeting notes, 10/4/2018. Bark re-iterates the request that the Forest Service be very clear about the limits on heavy equipment in the wet meadows. Also, the Aspen specific Aquatic Species & Habitat PDC #1: "Mechanical equipment should be kept a minimum of 30 feet from streambanks," contradicts with general Aquatic Species & Habitat PDC #9: "Protect or enhance existing dry and wet meadows by not allowing new temporary roads, landings or ground based equipment." We assume that the Forest Service intends to use mechanical equipment in the meadows for the Aspen Enhancement, but that it is simultaneously prohibiting itself from doing so. Bark suggests that the Forest Service focus on hand felling in the meadows, so as to comply with the general Aquatics PDC.	Yes, heavy equipment may be operated in the meadow to treat the aspen stands. To mitigate the impacts a project design criteria (PDC) was developed with a timing restriction to the dry season. Refer to the PDC section of the EA for Aspen, PDC Soils # 2. Clarifying language can be added to the aspen PDC that state "when possible access to the aspen stand 81 will be from the north off the 4811 road". Work in the meadow and aspen stands already have distinctive PDC to mitigate impacts.

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BARK5	**BARK**	In the Rocky PA, the Forest Service states that the "proposed changes to Forest System Roads are appropriate and primarily consistent with the TAR moving the road system toward the desired future condition." PEA at 40. However, the roads identified as "not likely needed" by the TAR are not proposed for decommissioning (as their desired future condition) in the PEA: 4800-130; 4811- 171; 4812-141; 4820-018; and 4820-025. The Forest Service states that these roads are "needed to remain as part of the Forest's transportation system for administrative use for fire management resources, as well as for future planning efforts." PEA at 16. Some of these roads appear to be redundant regarding access, and the "not likely needed" table provided appears to be inconsistent with the map provided within the TAR planning documents.	4800130 is 2.45 miles long, The TAR identified 0.02 miles (approximately 105 ft.) between MP 2.31 to MP 2.33 for decommissioning and Likely Not Needed and is currently closed (Operational Maintenance Level 1). The remaining 2.43 miles are identified as likely needed in the TAR. This project is not proposing to decommission the 105 foot segment of road identified in the TAR. For Roads 4811171, 4812141 and 4820018, their entire lengths had a past decision from the 2010 off-highway vehicle plan to decommission and were listed as likely not needed in the TAR, but now with additional consideration it has been determined those roads are needed for future forest management and other resource needs. 4820025 is listed as Likely Needed in the TAR. It is not listed as likely not needed. Please reference the TAR for the Mt. Hood National Forest. The proposed action for the transportation system is summarized in the Rocky roads table which displays the TAR recommendation for each road and any applicable past NEPA decisions. The table also displays all likely not needed roads within the planning area and what action Rocky is proposing.
BARK6	**BARK**	Additionally, some of the roads proposed for closure include roads identified to be decommissioned in	8 years has passed since the Off-highway transportation

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		the Record of Decision for Off-highway Travel Management (2010). The following roads would be returned to the transportation system as ML2 – administrative use only: 4811-171; 4812-141; and 4820-018. This is a major departure from both the assumptions made in the TAR, and the off-highway vehicle plan decision, and should be discussed further in the Final EA. If the Forest Service is to put forth a project inconsistent with the recommendations of the TAR, it must make its justification clearer (see below), for the public to understand this departure now and in the future when this area's transportation system is being analyzed again.	management decision was made, so it is understandable conditions and transportation system needs have changed. It is appropriate to identify such changes in site-specific projects such as Rocky. A travel analysis was conducted for this project, where the IDT evaluated the existing road system and determined that these changes were needed for fire management actions that require multiple entries in any given year, as well as for emergency use activities such as search and rescue (EA, p. 14).
BARK7	**BARK**	MHNF staff have expressed to Bark that while considering road work in proposed project areas, it is appropriate to recommend that the Forest Service consider changes in maintenance levels on roads with high combined resource risk along with those recommended by the TAR for decommissioning. In the Rocky Project Area specifically, Gate Creek has a particularly high ranking of 6th field watersheds with roads near streams. 2003 Roads Analysis at 23. Because failing roads are such a persistent source of sediment to streams and rivers, this watershed should be the focus of road decommissioning. Please explain rationale for NOT closing roads which have high combined resource risk, if any are not already identified for closure.	Actions to take place regarding the transportation system are described in the Proposed Action in Chapter 2 of the EA, and include about 38 miles of road closures. About 0.5 mile of those proposed closures had been rated in the TAR as having a high combined resource risk rating. The rational for closures is primarily related to concerns about effects to wildlife and the potential for human fire starts adjacent to the WUI. There are very few road segments in the project area that had been rated as having a high combined resource risk rating in the TAR. Most of those segments that were have either already been converted to trail, decommissioned, or have been identified as likely needed for the future by the TAR. Currently, there are more than 7 miles of closed or decommissioned roads in the project area. The IDT

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			determined that there are no additional roads needing to be decommissioned at this time because of other competing access objectives, such as ongoing and future management needs, fire suppression and protection, irrigation facilities, and forest users.
BARK8	**BARK**	Bark brought up several concerns about temporary roadbuilding in our scoping comments. The literature recognizes that, across the landscape, roads typically produce significant impact particularly where they are unsurfaced, open and used during the rainy season, cross streams at culverts that may be undersized, where they are close to fish bearing streams, or where they are located on steep unstable slopes. These are just a few of the potential impacts that roads can have, in addition to concerns often raised in our comments regarding the correlation between roadbuilding and future fire ignitions. According to the PEA, “most of the temporary roads would be rehabilitated after they are no longer needed, so that net road density would not increase.” Bark requests that all temporary roads that are not currently open off-highway vehicle trails be water barred, have culverts removed, de-compacted, and roughened as needed with the jaws of a loader or excavator. Also, debris, such as rootwads, slash, logs or boulders, should be placed near the entrance and along the first portion of the road. As noted above, please change the PDC to require that culverts SHALL (PEA says “should”) be removed and cross-drain ditches or water bars shall be installed as needed.	The EA was clarified to indicate all temporary roads would be rehabilitated after use and the PDC were revised to say "would" instead of "should".
BARK9	**BARK**	As recommended by the Wasco Collaborative group and stated in the PEA, these activities should occur before the unit is released. Specifically: • To restrict access to temporary	As stated in the EA (p. 25) "The sale administration team monitors compliance with the contract which contains the provision for

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		roads and skid trails built or rebuilt for this project when operations are not occurring (including between the normal operating seasons if work in sale unit in question is not complete in one season), please consider the following recommendations: • Between operating seasons and at the conclusion of the contract, include seasonal erosion control measures such as waterbar placement, and diversion ditch creation; • Between operating seasons and at the conclusion of the contract, include piling slash on the first few hundred feet of temporary road or skid trail, and placing boulders at the entrance to units from main road; • Incorporate skips to help obstruct unauthorized off-highway vehicle use in thinned units. Leave a thick, “vegetated screen” along roads in areas where off-highway vehicle use is expected based on past and current use. If there are areas within the units in question that would benefit ecologically from skips (such as seeps or other riparian areas), do not remove these in exchange for the vegetated screens, but look to achieve both the visual and ecological goals of the skips in these units; • Provide adequate Sale Administration staffing for workload, so that coverage is available when the assigned Sale Administrator is not working; • Require the Sale Administrator to discuss all requirements with contractor at pre-work meeting, review all pre-work discussions with contract representatives on site, and reemphasize as unit completion is eminent; • Require inspection by Sale Administrator before contractor’s equipment is moved offsite; • Require implementation and effectiveness monitoring of PDCs by both Sale Administrator and other specialists, including during the harvest activities; and • After project implementation and before conclusion of the contract, fully implement and monitor effectiveness of the aforementioned	resource protection, including but not limited to: seasonal restrictions, snags and coarse woody debris retention, stream protection, erosion prevention, soil protection, road closure and protection of historical sites." The PDC for temporary roads applies here. The provided recommendations are specific ways the commenter's group would like to see temporary roads closed. PDC do not usually include specific methods for closure so as not to limit the government during implementation. As long as the overall objective is met, the method used can vary. Temporary roads will be closed after completion or "winterized" between seasons per contract standards. Vegetated screens to limit unauthorized off-highway vehicle use is not a tool we can use because it limits our ability to meet the desired future conditions. Trails that are a part of the off-highway vehicle system have a retention buffer (Trails PDC #16).

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		activities in order to impede further damage from unauthorized motorized access to units after thinning has taken place.	
BARK10	**BARK**	Bark recognizes that oftentimes the intent of PDCs in EAs do not translate into sale contracts. In general, the intent of this PDC should be clearly communicated by the ID Team to the Sale Administrator and contractors to allow flexibility in achieving said intent, and to avoid misinterpretation. We then recommend closely monitoring progress on this work by the sale administrator to ensure that all landings and temporary roads are rehabilitated before the winter snows make this work impractical.	As stated in the EA (p. 25) "The sale administration team monitors compliance with the contract which contains the provision for resource protection, including but not limited to: seasonal restrictions, snags and coarse woody debris retention, stream protection, erosion prevention, soil protection, road closure and protection of historical sites."
BARK11	**BARK**	The Forest Service stated that the 26 miles of proposed temporary roadbuilding is probably a high estimate, and that depending on the specific activities pursued to achieve the purpose and need at each stand, some areas may not require any additional road access. We encourage you to pursue activities that require as little road construction as possible. Bark believes that any final decision should mitigate impacts to the environment, including potential increased fire risks, by limiting construction of new roads, and reconstruction of already decommissioned roads. As we have already stated, the science is very clear, fire danger is higher in areas with existing roads and it increases dramatically with construction of new roads.	Opening of decommissioned or closed roads would be temporary. While these roads are open, there may be an increase in human caused ignitions. While fire occurrence (not to be directly compared to fire danger; fire danger is based on fuel loadings, topography, and weather) may be higher due to access by humans, 8 of the 9 larger fires on the east side of the Mt. Hood (Hood River & Barlow RD) since 2007, have been in locations with limited access for suppression operations (see fire history of the Mt. Hood NF in fuels specialist report) or in locations too dangerous for fire suppression resources to engage safely. Limited access increases response time, thus increasing acres burned, and allowing a fire to propagate on the landscape (with increased exposure to unsafe conditions for suppression personnel

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			and the public as a fire increases in size).
MHForest Service1	**Dave Corkran, Mt. Hood Forest Study Group**	What is the hydrological condition of the area? There is no discussion of how the proposed treatments will influence tree evapotranspiration. Will thinning increase evapotranspiration by releasing trees for more rapid growth or reduce it by lowering the number of trees? If the latter, you may want to heavily thin areas around seeps, swamps, etc. to maintain summer flows. How would wide-spread thinning affect late summer stream flow?	The prescribed treatments within Riparian Reserves are not intended to manage summer low flows. The trade-off between soil-water supporting a larger number of competing, slower growing stems, to being reallocated to fewer, faster growing stems is not believed to be measurably different. Hence, neither is evapotranspiration or late summer streamflow. The extent of prescribed treatments within each of the 12-th field sub-watersheds is considered to be low, and would not alter enough of the total canopy cover over them to cause enough change in average low flows to be detectable over the long-term.
MHForest Service2	**Dave Corkran, Mt. Hood Forest Study Group**	We have concerns about slash piling and burning and mastication. If piling and burning mean huge machine created mountains of slash such as the one built south of Rock Creek Reservoir a dozen years ago, the fire hazard may be so great as to never allow burning. My memory is probably faulty, but I believe U.S had to pay to have this pile moved to some ill-fated biomass heating plant. Mastication is ineffective on the east side most of the time. The ground is too dry to rot the chips quickly.	See Forest Service report dated May 2018, "Masticated Fuels and Fire Behavior in Forests of the Interior West" by Morgan, Penelope, Smith, Alistair M.S., and Keefe, Robert F.; article published after final Rocky EA specialist reports were completed, but has updated data on the benefits of mastication. The Fuel report addresses this in the effects of increased Crown Base Height (CBH) by reducing the fuel bed depth, which limits the potential for a crown fire initiation. This effect is achieved by any activity that removes ladder fuels or lowers the surface fuel bed depth (mastication reduces fuel bed depth as does thinning small material from below). Piling of

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			material and burning of piled material (or removal off site) reduces the fuel loading available for surface fire behavior (see fuels specialist report, pages 12-23)
MHForest Service3	**Dave Corkran, Hood Forest Study Group**	We applaud the use of prescribed under burning to reduce fuel loading. It should be done. But past prescribed burns have been ineffective in reducing tree densities in the area. The prescribed fires of 12-15 years ago never were hot enough to do the job An EA should point to past failures of prescribed burning and state that there will a catastrophic fire because of such failures. That will constitute a major impact on the human environment. That should be part of an EA	The discussion of fire regime and condition class as well as fire behavior/severity took into account the past, the effects of which are captured by the existing condition, and no action and proposed action alternatives. Past prescribed burns met the approved plan objectives as authorized by the Agency Administrator, as well as meeting forest plan objectives as currently written.
DC1	**Dave Corkran**	Commenter provided a list of restoration projects within the Rocky project area that the Catlin Gabel School has cooperated with the Barlow Ranger District on since 1991 (see letter for the list). Commenter stated, "While some of these activities are no longer necessary given changed management goals and what appears to be roughly normal ecological plant succession, others are relevant. Restoring large wood to riparian areas would be one which was not mentioned in the preliminary EA. Encouraging beaver habitat may be another. Prescribed burning in some areas may burn up buck and pole fences protecting fragile sites. Perhaps these issues should be dealt with in the EA."	We value and appreciate the restoration projects that the Catlin Gabel School has partnered with the Forest Service to undertake over the years. The on the ground results of those projects are captured in the existing condition of the project area. The increase OF LWD to the stream channel and floodplain is expected occur, as well as the enhancement of beaver habitat is captured indirectly through the purpose and need of the project as described in the EA (p. 7). The project also includes a PDC to protect existing range improvements during prescribed burning, which includes the buck and pole and four strand wildlife friendly barbwire fencing.
RF1	**Rachel Friefelder**	I was particularly glad to see underburning to mimic historic fire regimes' reduction of understory fuels. Is U.S. Forest Service	Burn plans are based on the approved Environmental Analysis, and the project design

Comment Number	Commenter Name & Organization	Comments on the EA (30-day comment period)	Response to the Comment
		consulting in any way with the Warm Springs community or other nearby First Nations communities to plan these fires? There may be people with expertise in traditional controlled burning strategies	criteria that meet forest plans and treatment objectives.
RF2	**Rachel Friefelder**	A less-used road is still an interruption in hydrology, soils, surface roots, the mycorrhizal network, and other aspects of the forest ecosystem. Three roads that had been designated in 2010 for decommissioning are intended to be returned to service. Is this necessary? Please consider the benefit to the forest of road decommissioning	As stated in the EA (p. 14), these roads are needed for "...administrative use because fire management resources will continue to utilize these roads to implement and monitor prescribed fire operations in the project area, which may require multiple entries in any given year. Also, availability to access these roads will aid in future wildland fire response. The ability to quickly access, size up and engage in fire management operations is necessary within and adjacent to the Pine Hollow Wildland Urban Interface."
RF3	**Rachel Friefelder**	Research has shown that road density, even of less used roads, is positively correlated with wildfire and with conditions promoting fire. Roads create edges where brush and grasses can thrive and act as fine fuel. They also create wind corridors and sunny areas, which in turn promote drying and higher temperatures. All of these conditions promote the spread of fire. Could any roads in this project be decommissioned	As described in the EA (p. 16), temporary roads would be rehabilitated when no longer needed for implementation of the vegetation management activities. The interdisciplinary team reviewed the transportation system within the project area, and while decommissioning was considered, the Responsible Official determined that closing roads would be preferable so that they could remain available for Forest Service administrative use, as well as for emergency use activities, such as search and rescue.
OW1	**Doug Heiken, Oregon Wild**	Thinning to 40 tpa is too heavy, especially in stands that are less than 50 years old. This will cause	As stated in the EA, sapling thinning to approximately 40-100

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		unacceptable impacts on snag recruitment, wildlife cover, and carbon storage. The EA does not adequately describe these impacts.	TPA would be implemented based on site conditions in order to promote and develop more resilient stand conditions (EA p. 13-14). The vegetation section in Chapter 3 elaborates on this. As indicated in the wildlife section of the EA chapter 3 (p. 70-72), "large snags would not be impacted by the proposed action"; "the current conditions would remain unchanged. While some snags may be more prone to falling after thinning activities, the amount of snags lost would not be measurable at the watershed scale. Skips and streamside protection buffers would provide short and mid-term recruitment of snags similar to the level described under the No Action Alternative. Over the next 50 years, an increased number of snags would be recruited under the Proposed Action as the stands age and current snag levels would be again be achieved and then exceeded in both habitat types." Under the PA, Suitable habitat for the Northern Spotted Owl (NSO) would not be reduced within either the core areas or home ranges. "It is unlikely that the proposed harvest activities would impact the health or survival of any birds within or adjacent to the project area and is therefore, not likely to adversely affect spotted owls." Vegetation and fuel reduction treatments were determined to be of benefit to white-headed and Lewis's woodpecker, along with several other

Comment Number	Commenter Name & Organization	Comments on the EA (30-day comment period)	Response to the Comment
			species; and no effect to others.
OW2	**Doug Heiken, Oregon Wild**	In the oak restoration areas, please retain legacy conifers. Oak and conifers can co-exist. "Oak restoration" should retain a mix of tree species, including other hardwoods and all mature conifers. Do not remove large trees. Consider just culturing large white oaks and other fire resistant trees by thinning around them. If these are mature stands that have not been previously entered, the Forest Service should focus on removal of encroaching trees <12" dbh.	The proposal is to restore historical pine oak conditions. The proposed action states a variable thinning from below. The use of this technique favors the removal of the small diameter trees in the stand while maintaining the larger healthier trees in the overstory.
OW3	**Doug Heiken, Oregon Wild**	Make thinning prescriptions as variable as possible. Mimic natural forest patterns by emphasizing spatial variability between trees. On each treated acre, leave numerous small clumps of trees and small areas of very low tree density. "Gaps" should be heavily thinned, not clearcut. Untreated "skips" should be embedded in each treatment unit. Conduct a quantitative analysis to try to find the optimal mix of thinned and unthinned areas.	Stands will be treated using variable density thinning from below. Skips are used to protect sensitive areas. Gaps would not be used.
OW4	**Doug Heiken, Oregon Wild**	Gaps should be no larger than 2 acres and should retain significant live and dead wood structure. Not mini-clearcuts.	Gaps are not planned as part of the proposed silvicultural treatments.
OW5	**Doug Heiken, Oregon Wild**	Streams should be generously buffered from logging. 30 feet is far too little. Recognizing that relatively small trees provide functional wood in small streams, logging too close to streams will deprive streams of much need wood now and in the future. This is not well-documented in the NEPA analysis Thinning in riparian reserves outside of the no-cut buffers should be light.	As explained in the EA, "No-cut buffers range from 30 to 130 feet per side depending upon stream type and fish presence." Buffers are appropriate for the site, and are dependent on policies related to riparian management. The PDCs and BMPs under the proposed action would have no vegetation removal or mechanical treatments occur within one site potential tree height along fish bearing streams. Large woody debris levels are expected to increase over the long-term as future stream side trees

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			fall into the stream channel in the Action Area and 6th field sub-watershed level (EA, p. 61).
OW6	**Doug Heiken, Oregon Wild**	Impacts to small mammals such as flying squirrels should be mitigated by retaining significant uncut skips, and retaining more tree voles in thinned areas to provide mid-canopy visual occlusion.	The silvicultural treatments are designed to move the project toward the desired future condition as described in the forest plan and on page 9 of the EA. These goals for healthy and diverse forest conditions include benefits to all wildlife species including small mammals.
OW7	**Doug Heiken, Oregon Wild**	Avoid road construction. Focus treatments on areas accessible from existing roads. Areas that are not accessible can be treated non-commercially or allocated to the unthinned portion of the landscape.	As explained in the EA, temporary road construction is necessary to meet the purpose and need for action. Nearly all of this construction would occur on existing road prisms, old alignments converted to off-highway vehicle trails, or on decommissioned road alignments; and they would be rehabilitated after use. (EA, p. 11, 16)
OW8	**Doug Heiken, Oregon Wild**	Leave significant areas unthinned to mitigate the adverse effects of logging on snags and dead wood habitat, wildlife cover values, and carbon storage.	Over half the project area acreage is not proposed for treatment for various reasons. The areas that were included in the proposal are expected to benefit from treatment as described in the vegetation, fuels, wildlife, fisheries sections of EA chapter 3.
OW9	**Doug Heiken, Oregon Wild**	Greater efforts toward road removal is warranted in this landscape.	The transportation system was evaluated and the minimum road system decided outside of this project. The removal of permanent roads is outside the scope of the purpose and need for this project. Temporary roads (most of which would be constructed on existing road prisms and alignments) would be rehabilitated after use.

Comment Number	Commenter Name & Organization	Comments on the EA (30-day comment period)	Response to the Comment
OW10	**Doug Heiken, Oregon Wild**	The agency often claims that logging in riparian reserves is necessary to improve attributes other than large wood. However, these benefits are often minor and transitory, and do not outweigh the significant long-term adverse effect of logging on recruitment of dead wood. The agency must focus on the most significant contributions of vegetation toward ACS objectives and the most significant effects of logging on the ACS objectives. If the agency intends to log in riparian reserves to increase some nebulous goal like "vegetation diversity and complexity," then please explain why the biophysical indicators for the ACS objectives (set forth below) do not include any mention of vegetation diversity or complexity. See the Jazz Thinning Preliminary Analysis, 2011. http://bark-out.org/sites/default/files/bark-docs/Jazz_PA_0.pdf.	No significant effects of any kind were identified during the hydrological analysis. A summary the Aquatic Conservation Strategy objectives and how the Rocky Project action alternative would influence them was provided in the EA (p. 51-52).
HMP1	**Mia Pisano**	The creation of many miles of new roads, and the closure, but not decommissioning, of existing roads, weakens this project overall.	No new permanent roads would be created, rather temporary roads that would be rehabilitated when no longer needed for access to the areas proposed for vegetation management treatments. There would be a net decrease in open roads as a result of this project. 38 miles of currently open roads would be closed.
MP2	**Mia Pisano**	Illegal off-highway vehicle use in the area during and after the project remains a concern and I urge the Forest Service to ensure that there is active monitoring and prevention.	As described in the EA, project design criteria, which include monitoring, were developed to minimize/prevent illegal off-highway vehicle access during and following the proposed vegetation management and Rx burning activities.
MP3	**Mia Pisano**	I urge you to revise this project to reduce new road construction, so that it can move forward and benefit the forest and the surrounding communities.	As described in the EA, the minimum amount of temporary road construction needed for achievement of the purpose and need was

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			proposed and if possible less than that would be implemented. All temporary roads would be rehabilitated following implementation of the vegetation management activities.
WCFC1	**Andrew Spaeth, Wasco County Forest Collaborative group (WCFC)**	"Members of the Wasco County Forest Collaborative Group approved with full consensus the following recommendations (originally approved on May 12, 2016 and re-affirmed on October 4, 2018). For additional context please refer to the October 4, 2018 Wasco County Forest Collaborative meeting notes that include a number of clarifying questions and comments raised by WCFC members." SEE THE ATTACHMENT "US Forest Service Response To Collab Requests" for all 25 recommendations.	The commenter's recommendations provided in the October 21, 2018 letter are the same as those in the May 12, 2016 letter. 25 recommendations were provided. A description for how each of them were addressed was documented directly in the May 16, 2016 letter for use in development of the EA (most through incorporation into the Proposed Action and Project Design Criteria). Responses to each of the 25 comments is provided as an attachment to the "Response to 30-day Comments" spreadsheet (or at the end of the Word and PDF versions of this document).
DA1	**Dick Artley**	Please accept and consider these comments on the proposed Rocky Restoration timber sale pre-decisional EA and read them with an open mind. Remember, future generations of kids will seek out undeveloped forest land for solitude and quietness in a new America with a population that's double what we have now. You can serve these people or trash the area in and downstream from this sale area to generate volume for personal gain. I have compiled best independent science quotes describing the damage inflicted to the natural resources in the forest by logging and roading in the Opposing Views Science Attachments. The authors are experts in their fields. Please don't reject their wisdom. If volume accumulation didn't drive most of your national forest actions you would allow the "best science" in the	The "opposing views" supplied by the supporting documents may be a matter of interpretation. Often, the text cited in the opposing view is not supported by the document itself. Where noted as taken out of context, the opposing view is sometimes being refuted as an example in the cited document.

Comment Number	Commenter Name & Organization	Comments on the EA (30-day comment period)	Response to the Comment
		Opposing Views Science Attachments to guide you.	
DA2	**Dick Artley**	When proposing to take action will cause the ecosystem harm discussed in the Opposing Views Science Attachments any thinking, intelligent human being would conclude doing nothing (No Action) is better if ecosystem health is the primary goal … not volume generation Request for change to be made to the final NEPA document: Rewrite the effects disclosures for Proposed Action implementation (logging effects on fire) assuring they are accurate, consistent with best science and identify the source of the science that supports the new effects disclosures. Failure to do so will violate, 18 USC 1519, 18 USC 1001 (a)(3).	The best available science was used during analysis for effects determinations by individual resource areas. Refer to the Reference section of the EA.
DA3	**Dick Artley**	Please open Opposing Views Science Attachment #27 and examine the post-harvest aerial photos of US Forest Service timber sales with “restoration” on the sale name. I suggest that those of you who still believe a commercial timber sale will “restore” the forest seek other employment opportunities that aren’t connected to natural resources. Request for changes to be made to the final NEPA document: 1) Indicate which natural resources will be returned to an unimpaired or improved condition by logging and roading this timber sale area, 2) tell the public why you believe the resources are not functioning properly and need restoration, 3) discuss the natural resources in the area that could be harmed by the timber sale “treatments” and 4) list specific independent science quotes that show logging and roading the sale area will achieve natural resource restoration as you claim.	Many of the statements within the attachment and the letter are with regard to practices that are not proposed as part of the project, including clear cutting and salvage harvesting. Many of the statements are opinion pieces. Those statements that relate to scientific research that are relevant to this project have been examined and are concepts that are commonly understood by the resource specialists on the interdisciplinary team. The Proposed Action was developed with an understanding of the relevant science. The science behind thinning is sufficiently understood and is not highly controversial based on a review conducted for this project. A thorough review of relevant scientific information, including that contained in attachments, was conducted as part of this project.

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DA4	**Dick Artley**	Request for changes to be made to the final NEPA document: Analyze a no new road construction (including temp roads) action (emphasis added) alternative in detail and assure the environmental effects disclosures are accurate which means you will discuss the resource damage that will be significantly reduced.	Authority for the Agency to construct or give authorization for the construction and use of temporary roads is provided under 16 U.S.C. § 1608 – National Forest Transportation System and further governed under 36 CFR 212.1. Agency policy and direction on the construction and use of temporary roads is provided in Forest Service Manual and Forest Service Handbook publications Forest Service Manual 2432.34 and Forest Service Handbook 2409.18. The Project Design Criteria for roads and log haul included in the EA were developed specifically to reduce and/or mitigate the detrimental effects of the transportation system on other natural resources and incorporates National, Regional, and Local Best Management Practices. Decommissioning and rehabilitation of all temporary road alignments is required in all timber sale contracts per contract provision BT6.63 - Temporary Roads (applicable to all timber sale contracts), with site specific treatments defined under CT6.63# - Temporary Roads (specific to each timber sale contract). The Forest's minimum road system is identified in the Mt Hood NF, Travel Analysis Report, which has been incorporated by reference. It is available to the public online, at all four Ranger District Offices, and at the Forest

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			Supervisor's Office. Proposed temporary roads have been identified in the planning area. Temporary roads are roads that are built or reconstructed to access landings and are rehabilitated upon completion of all harvest activities. After use, temporary roads are water barred, culverts removed, decompacted, and roughened as needed with the jaws of a loader or excavator. Also, debris, such as rootwads, slash, logs or boulders, are placed near the entrance and along the first portion of the road. In the case where a temporary road is located along an existing off-highway vehicle trail, work will be conducted to re-contour and redevelop the trail system.
DA5	**Dick Artley**	The pre-decisional EA does not discuss how the timber sale's logging and slash/RX burning activities will be mitigated to assure protected migratory bird species' individuals and their habitat are not harmed in any way.	The impacts to migratory bird species was discussed in the PA: page 73.
DA6	**Dick Artley**	The pre-decisional EA does not discuss how the timber sale's logging and slash/RX burning activities will be mitigated to assure protected migratory bird species' individuals and their habitat are not harmed in any way. Ranger Sam, please apply Dr. Jack Cohen's fine fuels removal methods to further reduce the risk to people's homes and the lives of family members in the Pine Hollow WUI areas that are at risk should a wildfire start nearby. Not proposing to apply Dr. Cohen's fine fuel removal methods in this draft EA shows you are more concerned with the volume generated by fuels logging than you are someone's home and the lives of their family members. No human being would ignore something that could save a human life. You have	Commenter refers to a paper by Reinhardt and others (2008), of which Dr. Cohen was a co-author. Within the paper it is also stated, "Although general wildfire control efforts may not benefit from fuel treatments during extreme fire behavior, fuel modifications can significantly change outcome of a wildfire within a treatment area." This statement is specific to the wildland urban interface (WUI), of which the eastern portions of the Rocky project are identified in the Wasco County Community

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		no excuse to not comply with my request and you know it.	Wildfire Protection Plan (CWPP).
DA7	**Dick Artley**	Analyze at least one additional action alternative in detail…preferably an alternative suggested by the public as part of their scoping comments. Based on reading the scoping comments and your responses to these scoping comments there are clearly "unresolved conflicts."	In addition to the proposed action, a no action alternative was analyzed in detail and other alternative components were considered. These additional alternative components were evaluated in response to the comments received during scoping and the 30-day comment period.
DA8	**Dick Artley**	Include an accurate, truthful discussion of the direct and indirect effects of how logging this sale will affect greenhouse gases.	A disclosure regarding why the project would have negligible effects on greenhouse gases was added to the EA in chapter 3.
DA9	**Dick Artley**	If you care about maintaining aquatic species' health you will indicate in the final EA that all newly constructed temporary roads will be obliterated after use by returning the ground to the natural angle of repose and eliminating the road's running surface. If you were really concerned about aquatic species' health you wouldn't propose any new road construction.	Authority for the Agency to construct or give authorization for the construction and use of temporary roads is provided under 16 U.S.C. § 1608 – National Forest Transportation System and further governed under 36 CFR 212.1. Agency policy and direction on the construction and use of temporary roads is provided in Forest Service Manual and Forest Service Handbook publications Forest Service Manual 2432.34 and Forest Service Handbook 2409.18. The Project Design Criteria for roads and log haul included in the EA were developed specifically to reduce and/or mitigate the detrimental effects of the Transportation System on natural resources and incorporates National, Regional, and Local Best Management Practices. Decommissioning and rehabilitation of all temporary road

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			alignments is required in all timber sale contracts per contract provision BT6.63 - Temporary Roads (applicable to all timber sale contracts), with site specific treatments defined under CT6.63# - Temporary Roads (specific to each timber sale contract). The Forest's minimum road system is identified in the Mt Hood NF Travel Analysis Report (TAR), which has been incorporated by reference. It is available to the public online, at all four Ranger District Offices, and at the Forest Supervisor's Office. Proposed temporary roads are identified in the planning area. Temporary roads are roads that are built or reconstructed to access landings and are rehabilitated upon completion of all harvest activities. After use, temporary roads are water barred, culverts removed, decompacted, and roughened as needed with the jaws of a loader or excavator. Also, debris, such as rootwads, slash, logs or boulders, are placed near the entrance and along the first portion of the road. In the case where a temporary road is located along an existing off-highway vehicle trail, work will be conducted to re-contour and redevelop the trail system.
DA10	**Dick Artley**	Include a new (expanded) purpose and need that allows reasonable alternatives to the Proposed Action to be analyzed in detail. This purpose and need must describe goals that can be achieved at different levels by different actions…specifically actions that	In addition to the proposed action, a no action alternative was analyzed in detail as well as other alternatives considered. These additional alternatives were evaluated in

Comment Number	Commenter Name & Organization	Comments on the EA (30-day comment period)	Response to the Comment
		don't include timber harvest. If this cannot be done, the timber harvest purpose and need goal must be eliminated.	response to the comments received during scoping and the comment period.
DA11	**Dick Artley**	Assure it contains purpose and need statements specific to the sale area that describe unique problems with the proper functioning of the forest. This must include data showing why you believe the problem exists.	The purpose and need was developed specifically to the Rocky planning area.

Responses to the Wasco County Collaborative Group Recommendations

Wasco County Collaborative Group (WCCG) Comment Letters

This section includes our responses to each of the 25 Wasco County Collaborative Group (WCCG) recommendations that were submitted to District Ranger Kameron Sam in letters dated May 12, 2016 and October 21, 2018 (project record, public involvement folder). Additional concerns were presented to him during a collaborative group meeting that have been summarized and responded to as well. Each recommendation is listed followed by a location and description of where and how they were addressed in the Environmental Assessment.

1. WCCG **General** Recommendation: *Overall road density should, at a minimum, be reduced to the forest plan standard of 2mi/sq. mile*.

    - In the EA, Section 2.2.2.3.1 Road Closures, 38 miles of road would be closed to the public. The open road density would be reduced from 2.63 mi/mi2 to 1.63 mi/mi2).

2. WCCG **General** Recommendation: *A winter closure should be placed on all lateral roads to improve winter range utilization.*

    - In the EA, Section 2.2.2.3.1 Road Closures, the Proposed Road Action would be a year-round closure and would reduce open road density below the forest plan Standard.
    - Please take a look at the proposed action and maps.

3. WCCG **General** Recommendation: *After use, any non-system and temporary roads would be blocked, scarified and seeded.*

    In the EA section 2.2.3 Project Design Criteria- Roads:
    - Roads #7: Temporary roads and landings on temporary roads would be blocked, scarified, seeded and or mulched before the unit is released.

Culverts should be removed and cross-drain ditches or water bars shall be installed as needed. Disturbed ground shall be seeded and mulched and available logging slash, logs, or root wads should be placed across the road or landing surface. Post-harvest motorized access would be prevented through the construction of a berm, placement of large boulders, or other approved techniques."

4. WCCG **General** Recommendation: *All roads past the 4820-130 should be put into level 2 closure.*

   Please see the number 1 and 2 of this document to see how these roads will be put into level 2 administrative closure.

5. WCCG **General** Recommendation: *Impacts to existing off-highway vehicle trails should be minimized, and any that are used as a part of the Rocky project should be water barred and repaired.*

   In the EA section 2.2.3 Project Design Criteria- Recreation and Trails

   - Recreation #4. Ensure temporary roads not associated with off-highway vehicle trails are decommissioned to impassible conditions when harvest activities are complete.
   - Trails #9. Whenever possible, any trees felled within 1 tree length of the trail will be felled away from the trail. Any trees which fell across the trail would be cut or removed to prevent blockage of trails.
   - Trails #12: Any trail or trail crossing used for operations (temp roads, skid trails, fire line, landings, etc.) will be rehabilitated to meet standards associated with its designed use.
   - Trails #13. Temporary roads, skid trails, or equipment crossing system trails should be minimized. Any crossing points should be 100 feet apart and occur at right angles to the trail. Location of crossing points should be coordinated with the District Trail Manager.
   - Trails #14, Barriers to discourage off-highway vehicle access off trail would be installed on any equipment, temporary road, or skid trail crossings of system or non-system trails.
   - Trails #15: Treatment activity should not impact approximately more than 25 percent of off-highway vehicle trails or mixed use roads at one time and scattered, concurrent trail closures should be avoided.

6. WCCG **General** Recommendation: *Vegetative screens should be left along current trails, and brushing should be kept to a minimum.*

   In the EA section 2.2.3 Project Design Criteria- Trails

   - Trails #8. Stumps within 5 feet of trails would be cut less than 3" to reduce potential hazard to recreationists
   - Trails #14, Barriers to discourage off-highway vehicle access off trail would be installed on any equipment, temporary road, or skid trail crossings of system or non-system trails.
   - Trails #16. Maintain higher retention (60 percent canopy) within 50 feet of system trails designated for off-highway vehicle use.

7. WCCG **General** Recommendation: *Protect the integrity of the existing trail system, minimize disturbance of vegetation along trail boundaries, and keep higher tree density along trails and minimize trail crossing.*

   In the EA section 2.2.3 Project Design Criteria- Recreation and Trails

   - Recreation #3. Implement appropriate temporary closures as necessary to provide for public safety. Post closures at all temporary road access points, and access portals during treatment period(s). Closures and re-route information will be posted at designated off-highway vehicle trailheads, parking areas, campgrounds and at information kiosks when directed by recreation specialists. Information should also be disseminated to the public by recreation staff.

   - Recreation #4. Ensure temporary roads not associated with off-highway vehicle trails are decommissioned to impassible conditions when harvest activities are complete.

   - Trails #6. Within 100 feet of any system trail, skid trails should not run parallel system trail for more than 100 feet, unless approved by timber sale administrator.

   - Trails #8. Stumps within 5 feet of trails would be cut less than 3" to reduce potential hazard to recreationists

   - Trails #9. Whenever possible, any trees felled within 1 tree length of the trail will be felled away from the trail. Any trees which fell across the trail would be cut or removed to prevent blockage of trails.

   - Trails #12: Any trail or trail crossing used for operations (temp roads, skid trails, fire line, landings, etc.) will be rehabilitated to meet standards associated with its designed use.

- Trails #13. Temporary roads, skid trails, or equipment crossing system trails should be minimized. Any crossing points should be 100 feet apart and occur at right angles to the trail. Location of crossing points should be coordinated with the District Trail Manager.

- Trails #14, Barriers to discourage off-highway vehicle access off trail would be installed on any equipment, temporary road, or skid trail crossings of system or non-system trails.

- Trails #15: Treatment activity should not impact approximately more than 25 percent of off-highway vehicle trails or mixed use roads at one time and scattered, concurrent trail closures should be avoided.

- Trails #16. Maintain higher retention (60 percent canopy) within 50 feet of system trails designated for off-highway vehicle use.

Large Woody Debris:

8. WCCG **Large Woody Debris** Recommendation: *Retain the maximum amount of large down woody debris as feasible for wildlife, fuels and soil productivity in the Cowigator.*

   The current silvicultural prescriptions do not remove or target the removal of existing large down wood. In the EA protections are included in section 2.2.3 Project Design Criteria – Wildlife

   - Wildlife #4. An average of 6 logs per acre in decomposition classes 1, 2 and 3 should be retained. Logs should be relatively solid, retention of additional hollow and substantially fractured logs should be encouraged, and tops should generally not be included. Logs should be at least 20 inches in diameter at the small end and have a volume of 40 cubic feet. Prior to harvest, contract administrators would approve skid trail and skyline locations in areas that would avoid disturbing key concentrations of down logs or large individual down logs where possible.
   - Wildlife #5. All snags would be retained where safety permits. If snags must be cut for safety reasons they would be left on site.

Snags:

9. WCCG **Snag** Recommendation: *Protect all legacy snags where they exist.*

   In the EA protections are included in section 2.2.3 Project Design Criteria – Wildlife as stated in the previous recommendation for Large Wood Debris.

- Wildlife #4. An average of 6 logs per acre in decomposition classes 1, 2 and 3 should be retained. Logs should be relatively solid, retention of additional hollow and substantially fractured logs should be encouraged, and tops should generally not be included. Logs should be at least 20 inches in diameter at the small end and have a volume of 40 cubic feet. Prior to harvest, contract administrators would approve skid trail and skyline locations in areas that would avoid disturbing key concentrations of down logs or large individual down logs where possible.
- Wildlife #5. All snags would be retained where safety permits. If snags must be cut for safety reasons they would be left on site.

10. WCCG **Snag** Recommendation: *Proactively create snags to, at a minimum, meet forest plan standards*

    In the EA section *2.2.2.1.2* Plantation Thinning, the proposed action states that where possible, snags should be created to meet Forest plan Standards.

Thinning:

11. WCCG Recommendation: *The group is OKAY with the prescriptions for commercial thinning, and recommends that the Forest Service focus on preserving the legacy trees in each stand, understanding that what constitutes a "legacy" tree may differ given the age and history of each stand.*

In the EA in section *2.2.2.1.2 Plantation thinning, the p*lantation treatments would be an intermediate variable density thinning from below treatment. The use of this technique favors the removal of the small diameter trees in the stand while maintaining the larger healthier trees in the overstory.

12. WCCG Recommendation: *Where possible focus on WUI projects first, and be cost effective.*

    During implementation, the Forest Service will include WCCG and stakeholders in the implementation of treatments and respond to any concerns.

Riparian Areas:

13. WCCG **Riparian** Recommendation: *Maintain 60-foot protection buffers to ensure adequate shading and reduce risk of sedimentation.*

In the EA, section 2.2.3, Project Design Criteria – Aquatic Species and Habitat states the following

- Aquatic #3. No vegetation removal or mechanical treatments will occur within one site potential tree height along fish bearing streams, 60 feet along any non-fish bearing perennial streams, or 30 feet along any non-

fish bearing intermittent streams. Any trees felled within designated protection buffers would be left on site as additional stream channel woody material. Protection buffers for fish bearing streams would be a minimum of one site potential tree height (varies dependent on vegetation type of 90 feet to 130 feet), non-fish bearing perennial streams, ditches, springs and wetlands and Rock Creek Reservoir would be a minimum of 60-feet and a minimum of 30-feet for non-fish bearing intermittent streams, except as outlined in Aquatic Stream Buffer Table. Buffers are measured from the edge of the bankfull channel on both sides of the stream (or water's edge in the case of a pond or wetland). Buffers would be expanded to include slope breaks where appropriate. Under burning will still occur; and in Wildcat Creek drainage there may be a need for some brush removal and small (under 7 inch DBH) trees to be felled by hand and then hand piled prior to under burning.

14. WCCG **Riparian** Recommendation: *Within 90 feet on the East side of project and within 130 feet on the West side of project, restoration activities will be non-commercial treatments.*

    - Aquatic #3: See number 13 as this PDC responds to this recommendation as well.

15. WCCG **Riparian** Recommendation: *Maintain compliance with the Northwest forest plan to ensure maximum shading and minimize sedimentation of the natural water courses within the Rocky Burn*.

    In the EA, section 2.2.3, The following PDCs provided meets this recommendation

    - Aquatic #3. See number 13 as this PDC responds to this recommendation as well.

    - Aquatics #5. Use erosion control measures (e.g., silt fence, native grass seeding) where de-vegetation may result in delivery of sediment to adjacent surface water. Soil scientists or hydrologists would assist in evaluation of sites to determine if treatment is necessary and the type of treatment needed to stabilize soils.
    - Aquatics #6. If timber transport is approved between October 31 to June 1 on aggregate surface roads then the following criteria shall be met for roads that cross Gate Creek or its' tributaries:
        a) Haul routes must be inspected weekly, or more frequently if weather conditions warrant. Inspections will focus on road surface condition, drainage maintenance, and sources of soil erosion and sediment delivery to streams.
        b) Sediment traps will be inspected weekly during the wet season and entrained soil would be removed when the traps

have filled to 3/4 capacity. Dispose of these materials in a stable site which is not hydrologically connected to any stream.

- Aquatics #7. Logging activities will not be allowed in Riparian Reserves from October 31 to June 1 in lower elevation units.
- Aquatics #9. Protect or enhance existing dry and wet meadows by not allowing new temporary roads, landings or ground based equipment

16. WCCG **Riparian** Recommendation: *Prescribed fire within riparian buffers shall be used to enhance the riparian area in accordance with prudent forest practices as prescribed by the U.S. Forest Service.*

    This recommendation in incorporated in the EA, section 2.2.3, in the following PDC – Fuels.

    - Fuels #8. Low severity burns2 should constitute the dominant type of controlled burn within Riparian Reserves, resulting in a mosaic pattern of burned and unburned landscape.
    - Fuels #9. Moderate severity burns3 are permitted in no more than 20 percent of Riparian Reserves to invigorate desirable deciduous species.
    - Fuels #10. Burning activities excluded in Riparian Reserves are as follows: mechanical piling, ignition and mechanical fire line construction (e.g. dozer, tractor, etc.) within 100 feet of stream channels or springs.
    - Fuels #11. Within Riparian Reserves; wet line or black line would be used to control prescribed fire perimeter.
    - Fuels # 12. Ignitions of hand piling slash in Riparian Reserves is permitted no closer than 30 or 60 feet of a stream, measured from the streambank.
    - Fuels #13. Where handline is constructed, implement BMPs to reduce erosion and sedimentation risks, including constructing waterbars on all fire lines during initial fire line construction where slopes are greater than 20 percent.

17. WCCG Riparian Recommendation: *The natural species to the riparian areas shall be recognized and supported (including plant life, tree species, fish and wildlife).*

    This recommendation is incorporated in the EA, section 2.2.3 in the following PDCs for Aquatics and Vegetation.

    - Aquatics #2. No skidding in riparian reserves between October 31 and June 1.

    - Aquatic #3. See number 13 as this PDC responds to this recommendation as well.

- Vegetation #1. Tree planting would occur in gaps and areas where canopy closure would allow for the establishment of native tree species in both the uplands and riparian reserves.

18. WCCG **Riparian** Recommendation: *Large woody debris should be retained in fish bearing watercourses as balanced against the impact of sedimentation.*

This recommendation is incorporated in the EA section 2.2.3 in the following PDCs for Wildlife and Aquatics.

- Aquatics #1. No ground based mechanized equipment such as tractors or skidders would be allowed within 100 feet of streams, seeps, springs or wetlands. This would reduce the chance of sediment delivery to surface water.

- Aquatics #2. No skidding in riparian reserves between October 31 and June 1.

- Aquatic #3. See number 13 as this PDC responds to this recommendation as well.
- Wildlife #4. An average of 6 logs per acre in decomposition classes 1, 2 and 3 should be retained. Logs should be relatively solid, retention of additional hollow and substantially fractured logs should be encouraged, and tops should generally not be included. Logs should be at least 20 inches in diameter at the small end and have a volume of 40 cubic feet. Prior to harvest, contract administrators would approve skid trail and skyline locations in areas that would avoid disturbing key concentrations of down logs or large individual down logs where possible.
- Wildlife #5. All snags would be retained where safety permits. If snags must be cut for safety reasons they would be left on site.

19. WCCG **Riparian** Recommendation: *Bank stabilization will be provided where needed.*

With no equipment proposed within 60 feet of perennial riparian areas and only non-commercial work between 90-130 feet, there will be no effects to bank stabilization from proposed activities. The following PDC address roads:

- Roads #8. Pit run rock may be used when necessary to reduce erosion, ponding, rutting, and compaction on temporary roads and landings. To provide an efficient substrate for vegetative growth and water infiltration, rock would be removed or incorporated into the soil by decompacting to a depth of 24” or scarifying the roadbed following harvest activities.

- Roads #14. New temporary roads and landings should be located outside of Riparian Reserves. Use of existing facilities within riparian reserves may be allowed if erosion potential and sedimentation concerns could be sufficiently mitigated.

20. WCCG **Riparian** Recommendation: *Road system crossings of watercourses shall be by structures designed, built and maintained to avoid destruction from naturally occurring storm/flood events in compliance with the U.S. Forest Service regulations.*

    In the EA section 2.2.2.3.2 Road Repair and Maintenance, "*To facilitate the vegetation management activities proposed for the project area, it is important to ensure that the roads to be used by log trucks are safe. To address this need, the proposed action includes road maintenance and repair activities on up to approximately 90 miles of system roads. Road maintenance activities would be conducted prior to and during operations to ensure minimum safety standards and effective roadway drainage. Maintenance and repair include activities such as brushing, blading, deep patch repairs, culvert replacement, ditch and culvert cleaning, and the addition of aggregate rock to road surfaces."*

21. WCCG **Riparian** Recommendation: *Those watercourses within the WUI boundary for ¼ mile on each side of those streams inside the planning area shall be given the highest priority for thinning to maximize fire protection to maintain the re-established canopy.*

    During implementation, the Forest Service will include WCCG and stakeholders in the implementation of treatments and respond to any concerns in the WUI.

22. WCCG **Riparian** Recommendation: *The Grasshopper Grazing Allotment within the Rocky Burn shall be brought back to the Forest Collaborative group before beginning the NEPA process that would address reissuing the permit*.

    Future plans to reissue a term grazing permit for the Grasshopper allotment will go through the public notice process as part of the NEPA process for that proposal. The reissuance of that permit was not addressed in this project because such a proposal would be outside the purpose and need for Rocky.

Logging Contracting Best Practices:

23. WCCG Recommendation: *Including requirements in the stewardship or timber sale contract for the purchaser/logger to complete the blocking (piling slash, de-compacting soils, etc.) of those temporary roads and skids trails which connect to roads that will remain open upon completion of logging activity as each harvest unit is finished and prior to moving equipment away from the area.*

    The current contract language outlined below meets this recommendation and requires inspection 5 days after work has been completed.

Contract B Clause – BT6.36 (Stewardship Contracting is GT3.6)
BT6.36 - Acceptance of Work. Upon Purchaser's written request and assurance that work has been completed, Forest Service shall perform an inspection within 5 days, excluding weekends and Federal holidays, so as not to delay unnecessarily the progress of Purchaser's Operations. Such a request may be for acceptance of: (a) Specific requirements on a Payment Unit (such as logging, slash disposal, erosion control, or snag felling) or (b) All contract requirements on a Payment Unit. Forest Service may perform such inspections without request from Purchaser. Within 2 days of inspection, excluding weekends and Federal holidays, Forest Service shall furnish Purchaser with written notice either of acceptance or of work remaining to be done. In the event that Forest Service is unable to make such inspection within 5 days of Purchaser's request, Purchaser shall be notified in writing of necessity for postponement and time when inspection can be made. 14 When all contractual work of Purchaser has been accepted for any Payment Unit or cutting unit identified on Sale Area Map, said Payment Unit or cutting unit shall be eliminated from Sale Area on written notice of either party to this contract.)

24. WCCG Recommendation: *Requiring that blocking of temporary roads and skid trails which could be easily accessed by off-highway vehicles from open roads be done in conjunction with normal "winterization" activities such as installing waterbars in harvest units that are not completed prior to end-of-the-season equipment moveout.*

    The current contract language outlined below meets this recommendation:

    Contract C Clause - Over wintering: *Spur roads and/or landings will normally be constructed, used, and rehabilitated in the same operating season. If it is not possible road will be out-sloped, water-barred, have the entrance effectively blocked. Waterbars will be installed in locations that are determined primarily by road grade and topography. Waterbars are spaced to minimize accumulation of water draining off the road surface and will drain out onto the forest floor. The entire road will be seeded, mulched, and fertilized in accordance with CT6.6# prior to end of Normal Operating Season, or as designated by the Forest Service.*

25. WCCG Recommendation: Recommending that the Sale Administrator coordinates closely with the purchaser and contractors to achieve timely blocking of temporary roads and skid trails to prevent off-highway vehicle use and inspects harvest areas to certify that adequate blockages have been created prior to authorization of equipment move-out.

    This recommendation is addressed within WCCG recommendation numbers 5, 6, 7, and 23 within this document.

Wasco County Collaborative Group (WCCG) Meeting Comments

Additional concerns and recommendations were discussed during the October 4, 2018, WCCG meeting. Concerns and responses are captured below.

Snags

Concern: "The Forest Service does not plan to cut snags within the project area unless there is a safety issue. Snag protection is a challenge in the Rocky project area because there are not many trees large enough that meet forest plan standards."

> **Response:** The creation of snags is determined on a stand-by-stand basis after the thinning implementation is competed. A mandatory snag creation proposed action item would not be implementable across the project area due to the lack of available green trees that currently meet forest plan standards. Additionally, buffering snags that are a hazard instead of cutting them would not meet our purpose and need. The current proposed action would allow us to create snags when the residual stand provides adequate size trees and where residual density would allow for the creation without impacting necessary canopy cover and seed source for future regeneration and other resource protection needs.

Meadow and Aquatics Project Design Criteria (PDC)

Concern: The Wasco group brought up a concern about the use of heavy machinery in the meadow as part of the aspen enhancement activities.

> **Response:** The Forest Service updated the Aquatic PDC to clarify access for equipment, which will be off of the 4811 road when possible. The Aspen Soils PDC #2 addresses a timing need for treatments in the dry season.
>
> The Forest service added clarifying language to the PDC to highlight the fact that aspen and meadow treatments had independent PDC then the rest of the Aquatic areas. The group discussed aspen browse to clones released as a result of thinning. The Forest Service will use natural barriers, such as fallen trees, to reduce browse. If the natural barriers are not effective they will consider fencing the aspen as needed. In the case of the aspen stand within Rocky it is unlikely that fire will help regenerate the aspen given how wet the area is.

Roads

The group discussed roads within the project area. There was a brief overview and background of the Travel Analysis Report (TAR) and Travel Analysis Plan (TAP), which are recommended actions that require site specific analysis within individual Forest Service projects.

Concern: A member of the group suggested that some of the roads in the southern portion of the project area may be redundant.

> **Response:** "The Forest Service shared that they did not propose to decommission roads because they may be needed in the future for emergency access. The Forest Service did include a number of administrative closures, which means that there will be a gate placed on the road, the road will continue to meet Level 2 road specifications, and the road is

hydrologically stable. There may be some road maintenance and culvert work that will be done as part of the administrative closure of roads.

Concern: A member of the group expressed concern that the road budget for maintaining existing roads is not adequate and has been declining.

Response: Forest Service shared that as part of the project there should be funds available for road maintenance. The off-highway vehicle club also provides in-kind support and conducts road maintenance and trail maintenance on the forest. The roads that are proposed to remain open in the project area are likely to be needed for future wildfire containment or other emergency situations. There are buffers around trails to protect visual and other aspects of the recreation experience." The Project Design Criteria –Trails #16 in section 2.2.3 of the EA provides additional detail and addresses this concern.

Concern: WCCG discussed the use of temporary roads included in the proposed action. Members of the group encouraged the Forest Service to minimize the use of temporary roads and to identify opportunities to decommission roads within the project area.

Response: The Forest Service shared that the temporary roads will be removed after the project is completed, and that the number of temporary road miles included in the proposed action is a "cap" that will not be exceeded. In other words, not every temporary road identified in the project will be built to complete proposed vegetation management activities, but is being analyzed for in the effects analysis for the EA.